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<210> 3850

<211> 257

<212> PRT

<213> Homo sapiens

<400> 3850

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			20					25					30		
Phe	Pro	Phe	Asn	Gln	Trp	Gly	Leu	Gln	Pro	Arg	Ser	Leu	Leu	Leu	Gln
		35				40					45				
Ala	Ala	Arg	Gly	Tyr	Val	Val	Arg	Lys	Pro	Ala	Gln	Ser	Arg	Leu	Asp
	50					55					60				
Asp	Asp	Pro	Pro	Pro	Ser	Thr	Leu	Leu	Lys	Asp	Tyr	Gln	Asn	Val	Pro
65					70					75				80	
Gly	Ile	Glu	Lys	Val	Asp	Asp	Val	Val	Lys	Arg	Leu	Leu	Ser	Leu	Glu
			85						90				95		
Met	Ala	Asn	Lys	Lys	Glu	Met	Leu	Lys	Ile	Lys	Gln	Glu	Gln	Phe	Met
		100						105					110		
Lys	Lys	Ile	Val	Ala	Asn	Pro	Glu	Asp	Thr	Arg	Ser	Leu	Glu	Ala	Arg
		115					120					125			
Ile	Ile	Ala	Leu	Ser	Val	Lys	Ile	Arg	Ser	Tyr	Glu	Glu	His	Leu	Glu
	130					135					140				
Lys	His	Arg	Lys	Asp	Lys	Ala	His	Lys	Arg	Tyr	Leu	Leu	Met	Ser	Ile
145				150					155					160	
Asp	Gln	Arg	Lys	Lys	Met	Leu	Lys	Asn	Leu	Arg	Asn	Thr	Asn	Tyr	Asp
			165					170					175		
Val	Phe	Glu	Lys	Ile	Cys	Trp	Gly	Leu	Gly	Ile	Glu	Tyr	Thr	Phe	Pro

	180		185		190										
Pro	Leu	Tyr	Tyr	Arg	Arg	Ala	His	Arg	Arg	Phe	Val	Thr	Lys	Lys	Ala
	195						200						205		
Leu	Cys	Ile	Arg	Val	Phe	Gln	Glu	Thr	Gln	Lys	Leu	Lys	Lys	Arg	Arg
	210					215					220				
Arg	Ala	Leu	Lys	Ala	Ala	Ala	Ala	Ala	Gln	Lys	Gln	Ala	Lys	Arg	Arg
225				230					235					240	
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<210> 3851

<211> 1183

<212> DNA

<213> Homo sapiens

<400> 3851

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960
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1080

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actggacaac ctctctcccc aaatatgcct ccagattcac acataaacca caatggaaac
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<210> 3852

<211> 323

<212> PRT

<213> Homo sapiens

<400> 3852

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Val	Leu	Val	Val	Leu	Leu	Val	Val	Ile	Val	Val	Leu	Ala	Phe	Asn	Tyr
			20					25					30		
Trp	Ser	Ile	Ser	Ser	Arg	His	Val	Leu	Leu	Gln	Glu	Glu	Val	Ala	Glu
		35					40					45			
Leu	Gln	Gly	Gln	Val	Gln	Arg	Thr	Glu	Val	Ala	Arg	Gly	Arg	Leu	Glu
	50					55					60				
Lys	Arg	Asn	Ser	Asp	Leu	Leu	Leu	Leu	Val	Asp	Thr	His	Lys	Lys	Gln
65					70					75					80
Ile	Asp	Gln	Lys	Glu	Ala	Asp	Tyr	Gly	Arg	Leu	Ser	Ser	Arg	Leu	Gln
				85					90					95	
Ala	Arg	Glu	Gly	Leu	Gly	Lys	Arg	Cys	Glu	Asp	Asp	Lys	Val	Lys	Leu
			100					105					110		
Gln	Asn	Asn	Ile	Ser	Tyr	Gln	Met	Ala	Asp	Ile	His	His	Leu	Lys	Glu
	115						120					125			
Gln	Leu	Ala	Glu	Leu	Arg	Gln	Glu	Phe	Leu	Arg	Gln	Glu	Asp	Gln	Leu
	130					135					140				
Gln	Asp	Tyr	Arg	Lys	Asn	Asn	Thr	Tyr	Leu	Val	Lys	Arg	Leu	Glu	Tyr
145					150					155					160
Glu	Ser	Phe	Gln	Cys	Gly	Gln	Gln	Met	Lys	Glu	Leu	Arg	Ala	Gln	His
			165						170					175	
Glu	Glu	Asn	Ile	Lys	Lys	Leu	Ala	Asp	Gln	Phe	Leu	Glu	Glu	Gln	Lys
		180						185					190		
Gln	Glu	Thr	Gln	Lys	Ile	Gln	Ser	Asn	Asp	Gly	Lys	Glu	Leu	Asp	Ile
	195						200					205			
Asn	Asn	Gln	Val	Val	Pro	Lys	Asn	Ile	Pro	Lys	Val	Ala	Glu	Asn	Val
	210					215					220				
Ala	Asp	Lys	Asn	Glu	Glu	Pro	Ser	Ser	Asn	His	Ile	Pro	His	Gly	Lys
225				230						235					240
Glu	Gln	Ile	Lys	Arg	Gly	Gly	Asp	Ala	Gly	Met	Pro	Gly	Ile	Glu	Glu
			245						250					255	
Asn	Asp	Leu	Ala	Lys	Val	Asp	Asp	Leu	Pro	Pro	Ala	Leu	Arg	Lys	Pro
		260						265					270		
Pro	Ile	Ser	Val	Ser	Gln	His	Glu	Ser	His	Gln	Ala	Ile	Ser	His	Leu
	275						280					285			
Pro	Thr	Gly	Gln	Pro	Leu	Ser	Pro	Asn	Met	Pro	Pro	Asp	Ser	His	Ile
	290					295					300				
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Leu	His	Ala													

<210> 3853
 <211> 375
 <212> DNA
 <213> Homo sapiens

<400> 3853
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 180
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 240
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 375

<210> 3854
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 3854
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 Gln Ile Tyr Lys Gln Leu Gln Glu Met Asp Glu Arg Arg Thr Ile Lys
 35 40 45
 Leu Ser Glu Cys Tyr Arg Gly Phe Ala Asp Ser Glu Arg Lys Val Ile
 50 55 60
 Pro Ile Ile Ser Lys Cys Leu Glu Gly Met Ile Leu Ala Ala Lys Ser
 65 70 75 80
 Val Asp Glu Arg Arg Asp Ser Gln Met Val Val Asp Ser Phe Lys Ser
 85 90 95
 Gly Phe Glu Pro Pro Gly Asp Phe Pro Phe Glu Asp Tyr Ser Gln His
 100 105 110
 Ile Tyr Arg Thr Ile Ser Asp Gly Thr Ile Ser Ala Ser
 115 120 125

<210> 3855
 <211> 1377
 <212> DNA
 <213> Homo sapiens

<400> 3855
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cagaactgtg gctctggtgt gggtgggata gtggactatg gacctagacc caacaagagt
 180
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 240
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 300
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 360
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 420
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 480
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 540
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 780
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 1200
 ggctcttctt cctttgtact cttcagctgg cacctgctcc attctgcct acatgatggg
 1260
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<210> 3856

<211> 330

<212> PRT

<213> Homo sapiens

<400> 3856

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Ala	Lys	Tyr	His	Leu	Cys	Ser	Ala	Gly	Trp	Leu	Glu	Thr	Gly	Arg	Val
			20					25					30		
Ala	Tyr	Pro	Thr	Ala	Phe	Ala	Ser	Gln	Asn	Cys	Gly	Ser	Gly	Val	Val

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<210> 3857
<211> 797
<212> DNA
<213> Homo sapiens
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120
ccttccacca  ggtcctgggc  gagaagcata  agcgcggcca  cctggccgag  gccgagggcc
180
acagggacac  ttgcgacgaa  gactcgggtg  ccggcgagtc  ggaccgcata  gacgatggca
240
ctgttaatgg  ccgcggctgc  tccccgggcg  agtcggcctc  ggggggcctg  tccaaaaagc
300
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 420
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 480
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 797

<210> 3858

<211> 76

<212> PRT

<213> Homo sapiens

<400> 3858

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Ala	Thr	Arg	Ala	Ala	Pro	Cys	Pro	Thr	Ser	Cys	Arg	Ala	Trp	Cys	Ser
			20					25					30		
Ala	Pro	Cys	Ser	Thr	Ser	Ala	Arg	Pro	Ser	Thr	Arg	Ser	Trp	Ala	Arg
		35					40				45				
Ser	Ile	Ser	Ala	Ala	Thr	Trp	Pro	Arg	Pro	Arg	Ala	Thr	Gly	Thr	Leu
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Ala	Thr	Lys	Thr	Arg	Trp	Pro	Ala	Ser	Arg	Thr	Ala				
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<210> 3859

<211> 1449

<212> DNA

<213> Homo sapiens

<400> 3859

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 120
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 180
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 240
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 360

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 420
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 960
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 1020
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 1080
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<210> 3860

<211> 348

<212> PRT

<213> Homo sapiens

<400> 3860

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Lys	Val	His	Phe	Lys	Glu	Thr	Gln	Phe	Glu	Leu	Arg	Val	Leu	Gly	Lys
				20				25					30		
Asp	Cys	Asn	Glu	Thr	Ser	Phe	Phe	Phe	Glu	Ala	Arg	Ser	Lys	Thr	Ala
				35				40					45		
Cys	Lys	His	Leu	Trp	Lys	Cys	Ser	Val	Glu	His	His	Thr	Phe	Phe	Arg
				50			55				60				
Met	Pro	Glu	Asn	Glu	Ser	Asn	Ser	Leu	Ser	Arg	Lys	Leu	Ser	Lys	Phe

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Gly Ser Ile Arg Tyr Lys His Arg Tyr Ser Gly Arg Thr Ala Leu Gln						
	85			90		95
Met Ser Arg Asp Leu Ser Ile Gln Leu Pro Arg Pro Asp Gln Asn Val						
	100			105		110
Thr Arg Ser Arg Ser Lys Thr Tyr Pro Lys Arg Ile Ala Gln Thr Gln						
	115			120		125
Pro Ala Glu Ser Asn Thr Ile Ser Arg Ile Thr Ala Asn Met Glu Asn						
	130			135		140
Gly Glu Asn Glu Gly Thr Ile Lys Ile Ile Ala Pro Ser Pro Val Lys						
	145			150		155
Ser Phe Lys Lys Ala Lys Asn Glu Asn Ser Pro Asp Thr Gln Arg Ser						
	165			170		175
Lys Ser His Ala Pro Trp Glu Glu Asn Gly Pro Gln Ser Gly Leu Tyr						
	180			185		190
Asn Ser Pro Ser Asp Arg Thr Lys Ser Pro Lys Phe Pro Tyr Thr Arg						
	195			200		205
Arg Arg Asn Pro Ser Cys Gly Ser Asp Asn Asp Ser Val Gln Pro Val						
	210			215		220
Arg Arg Arg Lys Ala His Asn Ser Gly Glu Asp Ser Asp Leu Lys Gln						
	225			230		235
Arg Arg Arg Ser Arg Ser Arg Cys Asn Thr Ser Ser Gly Ser Glu Ser						
	245			250		255
Glu Asn Ser Asn Arg Glu His Arg Lys Lys Arg Asn Arg Ile Arg Gln						
	260			265		270
Glu Asn Asp Met Val Asp Ser Ala Pro Gln Trp Glu Ala Val Leu Arg						
	275			280		285
Arg Gln Lys Glu Lys Asn Gln Ala Asp Pro Asn Asn Arg Arg Ser Arg						
	290			295		300
His Arg Ser Arg Ser Arg Ser Pro Asp Ile Gln Ala Lys Glu Glu Leu						
	305			310		315
Trp Lys His Ile Gln Lys Glu Leu Val Asp Pro Ser Gly Leu Ser Glu						
	325			330		335
Glu Gln Leu Lys Glu Ile Pro Tyr Thr Lys Ile Glu						
	340			345		

<210> 3861

<211> 748

<212> DNA

<213> Homo sapiens

<400> 3861

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ggagagggca gctactccaa ggtgaagggtg gccacatcca agaagtacaa gggtagcgtg

180

gccatcaagg tggtggaccg gcggcgagcg cccccggact tcgtcaacaa gttcctgccc

240

cgagagctgt ccatactgcg gggcgtgcga caccgcaca tcgtgcacgt cttcgagttc

300

atcgaggtgt gcaacgggaa actgtacatc gtgatggaag cggccgccac cgacctgctg

360

caagccgtgc agcgcaacgg ggcacatcccc ggagttcagg cgcgcgacct ctttgcgag
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 720
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 748

<210> 3862
 <211> 210
 <212> PRT
 <213> Homo sapiens

<400> 3862
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 Lys Tyr Lys Gly Thr Val Ala Ile Lys Val Val Asp Arg Arg Arg Ala
 35 40 45
 Pro Pro Asp Phe Val Asn Lys Phe Leu Pro Arg Glu Leu Ser Ile Leu
 50 55 60
 Arg Gly Val Arg His Pro His Ile Val His Val Phe Glu Phe Ile Glu
 65 70 75 80
 Val Cys Asn Gly Lys Leu Tyr Ile Val Met Glu Ala Ala Ala Thr Asp
 85 90 95
 Leu Leu Gln Ala Val Gln Arg Asn Gly Arg Ile Pro Gly Val Gln Ala
 100 105 110
 Arg Asp Leu Phe Ala Gln Ile Ala Gly Ala Val Arg Tyr Leu His Asp
 115 120 125
 His His Leu Val His Arg Asp Leu Lys Cys Glu Asn Val Leu Leu Ser
 130 135 140
 Pro Asp Glu Arg Arg Val Lys Leu Thr Asp Phe Gly Phe Gly Arg Gln
 145 150 155 160
 Ala His Gly Tyr Pro Asp Leu Ser Thr Thr Tyr Cys Gly Ser Ala Val
 165 170 175
 Arg Val Thr Arg Val Met His Phe Leu Ser Thr Tyr Cys Leu Pro Gly
 180 185 190
 Pro Arg Ala His Gly Glu Glu Thr Trp Ala His Pro Cys Arg Lys Arg
 195 200 205
 Asp Asn
 210

<210> 3863
 <211> 341
 <212> DNA
 <213> Homo sapiens

<400> 3863
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120
agttttgctc tcagttggga ctctgggaaa aaaactgtgt ggctgatctc cagcaggttc
180
ttctggtcga ggctccccga gaaccatctg gccatgggct ggcagccgag ttctcgcagt
240
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341

<210> 3864
<211> 108
<212> PRT
<213> Homo sapiens

<400> 3864
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Ile Gly Trp Leu Ala Trp Asn Val Pro Ser Ala Trp Thr Leu Arg Glu
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35 40 45
Lys Asn Leu Val Glu Ile Ser His Thr Val Phe Phe Pro Glu Ser Gln
50 55 60
Leu Arg Ala Lys Leu Lys Cys Pro Gly Gly Ser Cys Thr Pro Gly Leu
65 70 75 80
Lys Lys Ile Gly Ser Leu Lys Val Ser Cys Glu Glu Phe Leu Leu Met
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Gly Leu Arg Tyr Gln His Leu Asp Pro Pro Ser Arg
100 105

<210> 3865
<211> 492
<212> DNA
<213> Homo sapiens

<400> 3865
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gagacctatg tgaagcccac ttaattttct gaaacttcac atcatgtacc ttcatgttaa
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360

tagtctgggt caaatagtac aaactgaata ttccttaacc aaaatgcttg gaagtaggcc
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 492

<210> 3866
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 3866
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 Ser His Asn Phe Lys Phe Leu Val Arg Leu Cys Ser Gln Gly Phe Arg
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 Ile Ile Asn Thr Asn Gly Leu Gly Gln Pro Ser His Ser Ser Leu Leu
 35 40 45
 Phe Thr Ser Leu Gln Leu Gln Leu Ser Phe Phe Ile Thr Leu Leu Phe
 50 55 60
 Leu Ser Ser Leu Gly Gln Ile Val Gln Thr Glu Tyr Ser Leu Thr Lys
 65 70 75 80
 Met Leu Gly Ser Arg Pro Gly Ala Ala Ala His Pro Cys Asn Pro Ser
 85 90 95
 Ile Leu Gly Gly Gln Ser Arg Gln Ile Thr Gln Gly Gln
 100 105

<210> 3867
 <211> 1032
 <212> DNA
 <213> Homo sapiens

<400> 3867
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 420
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 480
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 720
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 840
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 900
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 1032

<210> 3868

<211> 344

<212> PRT

<213> Homo sapiens

<400> 3868

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Lys	Met	Glu	Arg	Glu	Gln	His	Gln	Thr	Glu	Ile	Arg	Asp	Leu	Gln	Asp
			20					25					30		
Gln	Leu	Ser	Glu	Met	His	Asp	Glu	Leu	Asp	Ser	Ala	Lys	Arg	Ser	Glu
		35					40					45			
Asp	Arg	Glu	Lys	Gly	Ala	Leu	Ile	Glu	Glu	Leu	Leu	Gln	Ala	Lys	Gln
		50				55					60				
Asp	Leu	Gln	Asp	Leu	Leu	Ile	Ala	Lys	Glu	Glu	Gln	Glu	Asp	Leu	Leu
65					70				75					80	
Arg	Lys	Arg	Glu	Arg	Glu	Leu	Thr	Ala	Leu	Lys	Gly	Ala	Leu	Lys	Glu
			85					90						95	
Glu	Val	Ser	Ser	His	Asp	Gln	Glu	Met	Asp	Lys	Leu	Lys	Glu	Gln	Tyr
			100					105					110		
Asp	Ala	Glu	Leu	Gln	Ala	Leu	Arg	Glu	Ser	Val	Glu	Glu	Ala	Thr	Lys
		115					120					125			
Asn	Val	Glu	Val	Leu	Ala	Ser	Arg	Ser	Asn	Thr	Ser	Glu	Gln	Asp	Gln
		130				135					140				
Ala	Gly	Thr	Glu	Met	Arg	Val	Lys	Leu	Leu	Gln	Glu	Glu	Asn	Glu	Lys
145					150				155					160	
Leu	Gln	Gly	Arg	Ser	Glu	Glu	Leu	Glu	Arg	Arg	Val	Ala	Gln	Leu	Gln
			165					170						175	
Arg	Gln	Ile	Glu	Asp	Leu	Lys	Gly	Asp	Glu	Ala	Lys	Ala	Lys	Glu	Thr
		180					185						190		
Leu	Lys	Lys	Tyr	Glu	Gly	Glu	Ile	Arg	Gln	Leu	Glu	Glu	Ala	Leu	Val
		195					200					205			
His	Ala	Arg	Lys	Glu	Glu	Lys	Glu	Ala	Val	Ser	Ala	Arg	Arg	Ala	Leu
	210					215					220				
Glu	Asn	Glu	Leu	Glu	Ala	Ala	Gln	Gly	Asn	Leu	Ser	Gln	Thr	Thr	Gln
225					230				235					240	
Glu	Gln	Lys	Gln	Leu	Ser	Glu	Lys	Leu	Lys	Glu	Glu	Ser	Glu	Gln	Lys

				245					250					255			
Glu	Gln	Leu	Arg	Arg	Leu	Lys	Asn	Glu	Met	Glu	Asn	Glu	Arg	Trp	His		
			260						265					270			
Leu	Gly	Lys	Thr	Ile	Glu	Lys	Leu	Gln	Lys	Glu	Met	Ala	Asp	Ile	Val		
		275					280					285					
Glu	Ala	Ser	Arg	Thr	Ser	Thr	Leu	Glu	Leu	Gln	Asn	Gln	Leu	Asp	Glu		
	290					295					300						
Tyr	Lys	Glu	Lys	Asn	Arg	Arg	Glu	Leu	Ala	Glu	Met	Gln	Arg	Gln	Leu		
305				310						315					320		
Lys	Glu	Lys	Thr	Leu	Glu	Ala	Glu	Lys	Ser	Arg	Leu	Thr	Ala	Met	Lys		
			325					330						335			
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			340														

<210> 3869
 <211> 1226
 <212> DNA
 <213> Homo sapiens

<400> 3869
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 120
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 180
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 240
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 300
 gggaccatgg tggatggcat cctgggcact ttgtagcttg tctgagggaaggccctctgc
 360
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 420
 gactaccagt cactaggaga aaggtctccg gctatgccct tcccagtgat gcttgcccca
 480
 gagtgactgg tcacaggtgg gggacaggtt tgctccagaa accgtaggcc tttcttgtct
 540
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 780
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 960
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 1020

gctctcggca gcctgcacgg cccggctcag ggccttggtg agctcctcta ggtcgcccag
 1080
 gtcgagctgg atggagtgcc ggtgtctccg ggctggtggg ggagaggctg tgggcggcca
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 1226

<210> 3870

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3870

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Ala	Ile	His	His	Gly	Pro	Leu	Gln	Tyr	Leu	Thr	His	Gly	Pro	Gln	Leu
			20					25					30		
Leu	Leu	Gly	Ser	Gln	Trp	His	Leu	Ser	Val	Ala	Ser	Tyr	Leu	Pro	Gly
		35				40					45				
Pro	Gly	Trp	Gly	Thr	Val	Cys	Gly	His	Glu	Ala	Arg	Pro	Pro	Pro	Ala
	50					55				60					
Pro	Leu	Pro	Arg	Gly	Ser	Ser	Ile	Pro	Leu	His	Phe	Trp	Asn	Val	Cys
65					70					75				80	
Ala	Ser	Met	Met	Phe	Val	Tyr	Leu	Arg	His	Leu	Lys	Ile	Tyr	Phe	Arg
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Tyr	Glu	Gly	Lys												
			100												

<210> 3871

<211> 473

<212> DNA

<213> Homo sapiens

<400> 3871

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 180
 taggctgagg gaaaatacaa agatgaccc gttgatctcc gccttgatat tgaacgtcgt
 240
 aaaaaacata aggagagaga tcttaaacga ggtaaatacga gagaatcagt ggattcccca
 300
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 360
 aagaaacaga agaaagacct ctgagagccg agacaagctg ggagcgaaag gagattttcc
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 473

<210> 3872

<211> 66
 <212> PRT
 <213> Homo sapiens

<400> 3872
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 20 25 30
 Arg Glu Ser Val Asp Ser Arg Asp Ser Ser His Ser Arg Glu Arg Ser
 35 40 45
 Ala Glu Lys Thr Glu Lys Thr His Lys Gly Ser Lys Lys Gln Lys Lys
 50 55 60
 Asp Leu
 65

<210> 3873
 <211> 869
 <212> DNA
 <213> Homo sapiens

<400> 3873
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 180
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 300
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 360
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 420
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 540
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 660
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 720
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 780
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 840
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 869

<210> 3874

<211> 289
 <212> PRT
 <213> Homo sapiens

<400> 3874

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Glu Ala Tyr His Leu Ser Phe Glu Arg Arg Gln Lys Ser Ser Glu Ala
          35             40             45
Pro Val Gln Ser Pro Gln Arg Ser Val Asp Ser Ile Ser Gln Glu Ser
          50             55             60
Ser Thr Ser Ser Phe Ser Ser Met Ser Ala Gly Ser Arg Gln Glu Glu
65             70             75             80
Thr Lys Lys Asp Tyr Arg Glu Val Glu Lys Leu Leu Arg Ala Val Ala
          85             90             95
Asp Gly Asp Leu Glu Met Val Arg Tyr Leu Leu Glu Trp Thr Glu Glu
          100            105            110
Asp Leu Glu Asp Ala Glu Asp Thr Val Ser Ala Ala Asp Pro Glu Phe
          115            120            125
Cys His Pro Leu Cys Gln Cys Pro Lys Cys Ala Pro Ala Gln Lys Arg
          130            135            140
Leu Ala Lys Val Pro Ala Ser Gly Leu Gly Val Asn Val Thr Ser Gln
145            150            155            160
Asp Gly Ser Ser Pro Leu His Val Ala Ala Leu His Gly Arg Ala Asp
          165            170            175
Leu Ile Arg Leu Leu Leu Lys His Gly Ala Asn Ala Gly Ala Arg Asn
          180            185            190
Ala Asp Gln Ala Val Pro Leu His Leu Ala Cys Gln Gln Gly His Phe
          195            200            205
Gln Val Val Lys Cys Leu Leu Asp Ser Asn Ala Lys Pro Asn Lys Lys
          210            215            220
Asp Leu Ser Gly Asn Thr Pro Leu Ile Tyr Ala Cys Ser Gly Gly His
225            230            235            240Glu Leu
Val Ala Leu Leu Leu Gln His Gly Ala Ser Ile Asn Ala
          245            250            255
Leu Thr Ile Arg Gly Asn Thr Ala Leu His Glu Ala Val Ile Glu Lys
          260            265            270
His Val Phe Val Val Glu Leu Leu Leu His Gly Ala Ser Val Arg
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<210> 3875
 <211> 2640
 <212> DNA
 <213> Homo sapiens

<400> 3875

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120

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1740

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<210> 3876

<211> 824

<212> PRT

<213> Homo sapiens

<400> 3876

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			20					25					30	Val
Pro	Pro	Ala	Ala	Leu	Gly	Leu	Val	Ser	Ser	Arg	Thr	Ser	Gly	Ala
			35				40					45		Val
Pro	Pro	Lys	Glu	Glu	Glu	Leu	Arg	Ala	Ala	Val	Glu	Val	Leu	Arg
			50			55					60			Gly
His	Gly	Leu	His	Ser	Val	Leu	Glu	Glu	Trp	Phe	Val	Glu	Val	Leu
65					70				75					80
Asn	Asp	Leu	Gln	Ala	Asn	Ile	Ser	Pro	Glu	Phe	Trp	Asn	Ala	Ile
			85					90					95	Ser
Gln	Cys	Glu	Asn	Ser	Ala	Asp	Glu	Pro	Gln	Cys	Leu	Leu	Leu	Leu
			100				105					110		
Asp	Ala	Phe	Gly	Leu	Leu	Glu	Ser	Arg	Leu	Asp	Pro	Tyr	Leu	Arg
			115				120					125		Ser
Leu	Glu	Leu	Leu	Glu	Lys	Trp	Thr	Arg	Leu	Gly	Leu	Leu	Met	Gly
													Thr	

130		135		140	
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145		150		155	160
Leu Phe Phe Ser Thr Pro Arg Thr Phe Gln Glu Met Ile Gln Arg Leu					
	165		170		175
Tyr Gly Cys Phe Leu Arg Val Tyr Met Gln Ser Lys Arg Lys Gly Glu					
	180		185		190
Gly Gly Thr Asp Pro Glu Leu Glu Gly Glu Leu Asp Ser Arg Tyr Ala					
	195		200		205
Arg Arg Arg Tyr Tyr Arg Leu Leu Gln Ser Pro Leu Cys Ala Gly Cys					
	210		215		220
Ser Ser Asp Lys Gln Gln Cys Trp Cys Arg Gln Ala Leu Glu Gln Phe					
225		230		235	240
His Gln Leu Ser Gln Val Leu His Arg Leu Ser Leu Leu Glu Arg Val					
	245		250		255
Ser Ala Glu Ala Val Thr Thr Thr Leu His Gln Val Thr Arg Glu Arg					
	260		265		270
Met Glu Asp Arg Cys Arg Gly Glu Tyr Glu Arg Ser Phe Leu Arg Glu					
	275		280		285
Phe His Arg Trp Ile Glu Arg Val Val Gly Trp Leu Gly Lys Val Phe					
	290		295		300
Leu Gln Asp Gly Pro Ala Arg Pro Ala Ser Pro Glu Ala Gly Asn Thr					
305		310		315	320
Leu Arg Arg Trp Arg Cys His Val Gln Arg Phe Phe Tyr Arg Ile Tyr					
	325		330		335
Ala Ser Leu Arg Ile Glu Glu Leu Phe Ser Ile Val Arg Asp Phe Pro					
	340		345		350
Asp Ser Arg Pro Ala Ile Glu Asp Leu Lys Tyr Cys Leu Glu Arg Thr					
	355		360		365
Asp Gln Arg Gln Gln Leu Leu Val Ser Leu Lys Ala Ala Leu Glu Thr					
	370		375		380
Arg Leu Leu His Pro Gly Val Asn Thr Cys Asp Ile Ile Thr Leu Tyr					
385		390		395	400
Ile Ser Ala Ile Lys Ala Leu Arg Val Leu Asp Pro Ser Met Val Ile					
	405		410		415
Leu Glu Val Ala Cys Glu Pro Ile Arg Arg Tyr Leu Arg Thr Arg Glu					
	420		425		430
Asp Thr Val Arg Gln Ile Val Ala Gly Leu Thr Gly Asp Ser Asp Gly					
	435		440		445
Thr Gly Asp Leu Ala Val Glu Leu Ser Lys Thr Asp Pro Ala Ser Leu					
	450		455		460
Glu Thr Gly Gln Asp Ser Glu Asp Asp Ser Gly Glu Pro Glu Asp Trp					
465		470		475	480
Val Pro Asp Pro Val Asp Ala Asp Pro Gly Lys Ser Ser Ser Lys Arg					
	485		490		495
Arg Ser Ser Asp Ile Ile Ser Leu Leu Val Ser Ile Tyr Gly Ser Lys					
	500		505		510
Asp Leu Phe Ile Asn Glu Tyr Arg Ser Leu Leu Ala Asp Arg Leu Leu					
	515		520		525
His Gln Phe Ser Phe Ser Pro Glu Arg Glu Ile Arg Asn Val Glu Leu					
	530		535		540
Leu Lys Leu Arg Phe Gly Glu Ala Pro Met His Phe Cys Glu Val Met					
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<210> 3877
<211> 1112
<212> DNA
<213> Homo sapiens
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420
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 960
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<210> 3878

<211> 370

<212> PRT

<213> Homo sapiens

<400> 3878

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Gly	Ser	Pro	Tyr	Val	Asn	Gly	Ser	Leu	Gly	Glu	Val	Thr	Pro	Cys	Gln
			20					25					30		
His	Ala	Lys	Lys	Ala	Asn	Gly	Pro	Asn	Tyr	Ile	Gln	Pro	Gln	Lys	Arg
		35					40					45			
Gln	Thr	Thr	Phe	Glu	Ser	Gln	Asp	Arg	Lys	Ala	Val	Ser	Pro	Ser	Ser
	50					55					60				
Ser	Glu	Lys	Arg	Ser	Lys	Asn	Pro	Ile	Ser	Arg	Pro	Leu	Glu	Gly	Lys
65					70					75				80	
Lys	Ser	Leu	Ser	Leu	Ser	Ala	Lys	Thr	His	Asn	Ile	Gly	Phe	Asp	Lys
			85						90					95	
Asp	Ser	Cys	His	Ser	Thr	Thr	Lys	Thr	Glu	Ala	Ser	Gln	Glu	Glu	Arg
		100						105					110		
Ser	Asp	Ser	Ser	Gly	Leu	Thr	Ser	Leu	Lys	Lys	Ser	Pro	Lys	Val	Ser
	115						120					125			
Ser	Lys	Asp	Thr	Arg	Glu	Ile	Lys	Thr	Asp	Phe	Ser	Leu	Ser	Ile	Ser
	130					135					140				
Asn	Ser	Ser	Asp	Val	Ser	Ala	Lys	Asp	Lys	His	Ala	Glu	Asp	Asn	Glu
145				150						155				160	
Lys	Arg	Leu	Ala	Ala	Leu	Glu	Ala	Arg	Gln	Lys	Ala	Lys	Glu	Val	Gln
			165					170					175		
Lys	Lys	Leu	Val	His	Asn	Ala	Leu	Ala	Asn	Leu	Asp	Gly	His	Pro	Glu

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<210> 3879
<211> 2769
<212> DNA
<213> Homo sapiens
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<210> 3880

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3880

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Phe	Leu	His	Arg	Leu	Pro	Ser	Glu	Val	Ser	Ala	Leu	Gln	His	Leu	Lys
			20					25					30		
Ala	Ile	Asp	Leu	Ser	Arg	Asn	Gln	Phe	Gln	Asp	Phe	Pro	Glu	Gln	Leu
		35					40					45			
Thr	Ala	Leu	Pro	Ala	Leu	Glu	Thr	Ile	Asn	Leu	Glu	Glu	Asn	Glu	Ile
		50				55					60				
Val	Asp	Val	Pro	Val	Glu	Lys	Leu	Ala	Ala	Met	Pro	Ala	Leu	Arg	Ser
65					70				75					80	
Ile	Asn	Leu	Arg	Phe	Asn	Pro	Leu	Asn	Ala	Glu	Val	Arg	Val	Ile	Ala
				85					90					95	
Pro	Pro	Leu	Ile	Lys	Phe	Asp	Met	Leu	Met	Ser	Pro	Glu	Gly	Ala	Arg
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Ala	Pro	Leu	Pro												
			115												

<210> 3881

<211> 1393

<212> DNA

<213> Homo sapiens

<400> 3881

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<210> 3882

<211> 277

<212> PRT

<213> Homo sapiens

<400> 3882

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Asp	Ser	Gly	Ala	Lys	Gly	Gly	Lys	Val	Lys	Leu	Leu	Gly	Lys	Pro	Val
			20				25						30		
Gln	Met	Pro	Ser	Leu	Asn	Trp	Pro	Glu	Ala	Leu	Pro	Pro	Pro	Pro	Pro

35	40	45
Ser Cys Glu Leu Ser Cys Leu Glu Gly Pro Glu Glu Glu Leu Glu Gly		
50	55	60
Ser Ser Glu Pro Glu Glu Trp Cys Pro Pro Met Pro Glu Arg Ser His		
65	70	75
Leu Thr Glu Pro Ser Ser Ser Gly Gly Trp Leu Val Thr Pro Ser Arg		
85	90	95
Arg Glu Thr Pro Ser Pro Thr Pro Ser Tyr Gly Gln Gln Ser Thr Ala		
100	105	110
Thr Leu Thr Pro Ser Pro Pro Asp Pro Pro Gln Pro Pro Thr Asp Met		
115	120	125
Pro His Leu His Gln Met Pro Arg Arg Val Pro Leu Gly Pro Ser Ser		
130	135	140
Pro Leu Ser Val Ser Gln Pro Met Leu Gly Ile Arg Glu Ala Arg Pro		
145	150	155
Ala Gly Leu Gly Ala Gly Pro Ala Ala Ser Pro His Leu Ser Pro Ser		
165	170	175
Pro Ala Pro Ser Thr Ala Ser Ser Ala Pro Gly Arg Thr Trp Gln Gly		
180	185	190
Asn Gly Glu Met Thr Pro Pro Leu Gln Gly Pro Arg Ala Arg Phe Arg		
195	200	205
Lys Lys Pro Lys Ala Leu Pro Tyr Arg Arg Glu Asn Ser Pro Gly Asp		
210	215	220
Leu Pro Pro Pro Pro Leu Pro Pro Pro Glu Xaa Arg Gly Glu Leu Gly		
225	230	235
Pro Arg Ala Glu Gly Ser Arg Gln His Val Leu Pro Gly Ala Gly Ala		
245	250	255
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<210> 3883

<211> 943

<212> DNA

<213> Homo sapiens

<400> 3883

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480

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<210> 3884
 <211> 199
 <212> PRT
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<400> 3884
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 Lys Ala Arg Arg Arg Thr Arg Ser Ser Ser Ser Ser Ser Ser Ser
 35 40 45
 Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser
 50 55 60
 Asp Gly Arg Lys Lys Arg Gly Lys Tyr Lys Asp Lys Arg Arg Lys Lys
 65 70 75 80
 Lys Lys Lys Arg Lys Lys Leu Lys Lys Lys Gly Lys Glu Lys Ala Glu
 85 90 95
 Ala Gln Gln Val Glu Ala Leu Pro Gly Pro Ser Leu Asp Gln Trp His
 100 105 110
 Arg Ser Ala Gly Glu Glu Glu Asp Gly Pro Val Leu Thr Asp Glu Gln
 115 120 125
 Val Pro Asn Pro Gly His Glu Ala His Asp Gln Gly Gly Trp Asp Ala
 130 135 140
 Arg Gln Ser Val Ile Arg Lys Val Val Asp Pro Glu Thr Gly Arg Thr
 145 150 155 160
 Arg Leu Ile Lys Gly Asp Gly Glu Val Leu Glu Glu Ile Val Thr Lys
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<210> 3885
 <211> 1671
 <212> DNA
 <213> Homo sapiens

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<210> 3886

<211> 277

<212> PRT

<213> Homo sapiens

<400> 3886

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Gly	Ala	Gly	Gly	Ser	Ile	Thr	Ser	Val	Asp	Phe	Asp	Pro	Ser	Gly	Tyr
	35					40					45				
Gln	Val	Leu	Ala	Ala	Thr	Tyr	Asn	Gln	Ala	Ala	Gln	Leu	Trp	Lys	Val
	50				55					60					
Gly	Glu	Ala	Gln	Ser	Lys	Glu	Thr	Leu	Ser	Gly	His	Lys	Asp	Lys	Val
65				70					75					80	
Thr	Ala	Ala	Lys	Phe	Lys	Leu	Thr	Arg	His	Gln	Ala	Val	Thr	Gly	Ser
			85					90					95		
Arg	Asp	Arg	Thr	Val	Lys	Glu	Trp	Asp	Leu	Gly	Arg	Ala	Tyr	Cys	Ser
	100							105					110		
Arg	Thr	Ile	Asn	Val	Leu	Ser	Tyr	Cys	Asn	Asp	Val	Val	Xaa	Trp	Gly
	115					120					125				
Pro	Tyr	His	His	Xaa	Ser	Gly	His	Asn	Asp	Gln	Lys	Ile	Arg	Phe	Trp
	130					135				140					
Asp	Ser	Xaa	Gly	Gly	Pro	Thr	Ala	Pro	Arg	Ser	Ser	Leu	Xaa	Gln	Gly
145				150					155					160	
Arg	Val	Thr	Ser	Leu	Ser	Leu	Ser	Xaa	Arg	Pro	Thr	Xaa	His	Leu	Leu
			165					170					175		
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<212> DNA

<213> Homo sapiens

<400> 3887

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<400> 3888
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3035

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 Asn Leu Gly Tyr Met Asp Leu Leu Arg Met Leu Thr Gly Pro Val Tyr
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Met Tyr Thr Leu Leu Asp Ser Cys Leu Asp Arg Leu Asp Ile Phe Glu						
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Phe Leu Asn His Val Glu Asp Gly Leu Lys Asp His Tyr Asp Ile Lys						
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Met Leu Thr Phe Leu Met Leu Val Arg Leu Ser Thr Leu Cys Pro Ser						
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<211> 556

<212> DNA

<213> Homo sapiens

<400> 3889

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Arg Lys Val Val Asp Pro Glu Thr Gly Arg Thr Arg Leu Ile Lys Gly
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Asp Gly Glu Val Leu Glu Glu Ile Val Thr Lys Glu Arg His Arg Glu
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<400> 3891

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<211> 179

<212> PRT

<213> Homo sapiens

<400> 3892

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 <212> DNA
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<210> 3894

<211> 334

<212> PRT

<213> Homo sapiens

<400> 3894

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		180						185					190		
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<210> 3895
<211> 1227
<212> DNA
<213> Homo sapiens
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<210> 3896

<211> 346

<212> PRT

<213> Homo sapiens

<400> 3896

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			20					25					30		
Pro	Glu	Asp	Thr	Pro	Glu	Asn	Thr	Val	Arg	Arg	Gln	Glu	Gln	Pro	Ser
		35					40					45			
Ile	Glu	Ser	Thr	Ser	Pro	Ile	Ser	Arg	Thr	Asp	Glu	Ile	Arg	Lys	Asn
	50					55				60					
Thr	Tyr	Arg	Thr	Leu	Asp	Ser	Leu	Glu	Gln	Thr	Ile	Lys	Gln	Leu	Glu
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Asn	Thr	Ile	Ser	Glu	Met	Ser	Pro	Lys	Ala	Leu	Val	Asp	Thr	Ser	Cys
				85					90					95	
Ser	Ser	Asn	Arg	Asp	Ser	Val	Ala	Ser	Ser	Ser	His	Ile	Ala	Gln	Glu
		100						105					110		
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		115					120					125			
Glu	Pro	Pro	Thr	Ser	Ile	Pro	Ser	Ala	Ser	Arg	Lys	Gly	Ser	Ser	Gly
	130					135					140				
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				165					170					175	
Arg	Gln	Tyr	Arg	Gln	Ala	Asn	Gly	Ser	Ala	Lys	Lys	Ser	Gly	Gly	Asp
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	195						200					205			
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	210					215					220				
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225					230					235					240
Asn	Pro	Leu	Ser	Pro	Gln	Thr	Gly	Pro	Pro	Ala	His	Ser	Ala	Ser	Leu
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Arg	Ala	Pro	Pro	Pro	Leu	Ser	Phe	Ser	Ser	Ser	Pro	Pro	Ser	Pro	Ala
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Ser	Ser	Val	Ser	Leu	Asn	Gln	Gly	Ala	Lys	Gly	Thr	Arg	Thr	Ile	His
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Thr	Pro	Ser	Leu	Thr	Ser	Tyr	Lys	Ala	Gln	Asn	Gly	Ser	Ser	Ser	Lys
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<210> 3897
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 <213> Homo sapiens

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<210> 3898
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 3898
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 35 40 45
 Cys Val Gln Asp Val Ser Glu Thr Pro Val Pro Leu Pro Val Pro Leu
 50 55 60
 Ser Val Pro Leu Ser Thr Ser Val Thr Ser Ser Leu Arg Gly Ser His
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<210> 3899
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<210> 3900

<211> 249

<212> PRT

<213> Homo sapiens

<400> 3900

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			20					25					30		
Gly	Arg	Ser	Gly	Leu	Glu	Pro	Gly	Thr	Phe	Arg	Lys	Met	Ala	Ala	Ala
		35					40					45			
Arg	Pro	Ser	Leu	Gly	Arg	Val	Leu	Pro	Gly	Ser	Ser	Val	Leu	Phe	Leu
		50				55					60				
Cys	Asp	Met	Gln	Glu	Lys	Phe	Arg	His	Asn	Ile	Ala	Tyr	Phe	Pro	Gln
65					70					75					80
Ile	Val	Ser	Val	Ala	Ala	Arg	Met	Leu	Lys	Val	Ala	Arg	Leu	Leu	Glu
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Leu Arg Ser Val Leu Leu Cys Gly Ile Glu Ala Gln Ala Cys Ile Leu
      145              150              155              160
Asn Thr Thr Leu Asp Leu Leu Asp Arg Gly Leu Gln Val His Val Val
      165              170              175
Val Asp Ala Cys Ser Ser Arg Ser Gln Val Asp Arg Leu Val Ala Leu
      180              185              190
Ala Arg Met Arg Gln Ser Gly Ala Phe Leu Ser Thr Ser Glu Gly Leu
      195              200              205
Ile Leu Gln Leu Val Gly Asp Ala Val His Pro Gln Phe Lys Glu Ile
      210              215              220
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<210> 3901

<211> 1287

<212> DNA

<213> Homo sapiens

<400> 3901

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840

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<210> 3902

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3902

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			20					25					30		
Trp	Ala	Ala	Thr	Thr	Ala	Arg	Asn	Ala	Leu	Val	Val	Ser	Phe	Ala	Ala
		35					40					45			
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	50					55					60				
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Ser	Val	Thr	Thr	Ala	Asn	Gly	Thr	Ile	Ser	Phe	Thr	Glu	Met	Val	Gln
				85					90					95	
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			100					105					110		
Ser	Ile	Ala	Val	Ala	Lys	Ala	Phe	Ala	Ser	Gln	Asn	Asn	Tyr	Arg	Ile
		115				120					125				
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Val	Asn	Ala	Gln	Ser	Gly	Val	Cys	Thr	Pro	Ala	Gly	Gly	Leu	Val	Thr
			165					170						175	
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		180						185					190		
Tyr	Ile	Pro	Lys	Ser	Ala	Leu	Ala	Ala	Val	Ile	Ile	Met	Ala	Val	Ala
	195					200						205			
Pro	Leu	Phe	Asp	Thr	Lys	Ile	Phe	Arg	Thr	Leu	Trp	Arg	Val	Lys	Arg
	210					215					220				
Leu	Asp	Leu	Leu	Pro	Leu	Cys	Val	Thr	Phe	Leu	Leu	Cys	Phe	Trp	Glu
225					230					235					240
Val	Gln	Tyr	Gly	Ile	Leu	Ala	Gly	Ala	Leu	Val	Ser	Leu	Leu	Met	Leu

				245						250						255
Leu	His	Ser	Ala	Ala	Arg	Pro	Glu	Thr	Lys	Val	Ser	Glu	Gly	Pro	Val	
			260						265				270			
Leu	Val	Leu	Gln	Pro	Ala	Ser	Gly	Leu	Ser	Phe	Pro	Val	Leu	Cys	Pro	
		275					280					285				
Pro	Leu	Pro	Ala	Val	Gln	Asp	Pro	Lys	Thr	Leu	Ser	Pro	Thr	Leu	Ser	
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<210> 3903

<211> 598

<212> DNA

<213> Homo sapiens

<400> 3903

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<210> 3904

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3904

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		20					25					30			
Val	Ile	Phe	Met	Ala	Leu	Asp	Leu	Ala	Ser	Leu	Ala	Ser	Val	Arg	Ala
	35					40				45					
Phe	Ala	Thr	Ala	Phe	Leu	Ser	Ser	Glu	Pro	Arg	Leu	Asp	Ile	Leu	Ile
	50				55					60					
His	Asn	Ala	Gly	Ile	Ser	Ser	Cys	Gly	Arg	Thr	Arg	Glu	Ala	Phe	Asn
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<212> DNA

<213> Homo sapiens

<400> 3905

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Gln Ser Ala Met	Leu Gln Leu Asp	Tyr Gly Asp Thr Val Trp	Leu Arg		
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<212> DNA

<213> Homo sapiens

<400> 3907

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Leu	Leu	Ala	Thr	Pro	Thr	Pro	Glu	Leu	Leu	Asp	Trp	Arg	Gln	Ser	
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Leu	Glu	Asp	Val	Asp	Ala	Ala	Phe	Thr	Asp	Thr	Asp	Cys	Val	Val	Arg
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<400> 3909

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Cys Thr Val Ile Ala Ile Leu Leu His Phe Leu Tyr Leu Cys Thr Phe		1920
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 Leu Thr Ser Glu Val His Met Arg Asp Pro Asn Asn Gln Leu His Val
 50 55 60
 Ile Lys Asn Leu Lys Ile Ala Val Ser Asn Ile Val Thr Gln Pro Pro
 65 70 75 80
 Gln Pro Gly Ala Ile Arg Lys Leu Leu Asn Asp Val Val Ser Gly Ser
 85 90 95
 Gln Pro Ala Glu Gly Leu Val Ala Asn Val Ile Thr Ala Gly Asp Tyr
 100 105 110
 Asp Leu Asn Ile Ser Ala Thr Thr Pro Trp Phe Glu Ser Tyr Arg Glu
 115 120 125
 Thr Phe Leu Gln Ser Met Pro Ala Ser Asp His Glu Phe Leu Asn His
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 Tyr Leu Ala Cys Met Leu Val Ala Ser Ser Ser Glu Ala Glu Pro Val
 145 150 155 160
 Glu Gln Phe Ser Lys Leu Ser Gln Glu Gln His Arg Ile Gln His Asn
 165 170 175
 Ser Asp Tyr Ser Tyr Pro Lys Trp Phe Ile Pro Asn Thr Leu Lys Tyr
 180 185 190
 Tyr Val Leu Leu His Asp Val Ser Ala Gly Asp Glu Gln Arg Ala Glu
 195 200 205
 Ser Ile Tyr Glu Glu Met Lys Gln Lys Tyr Gly Thr Gln Gly Cys Tyr

210	215	220
Leu Leu Lys Ile Asn Ser Arg Thr Ser Asn Arg Ala Ser Asp Glu Gln		
225	230	235
Ile Pro Asp Pro Trp Ser Gln Tyr Leu Gln Lys Asn Ser Ile Gln Asn		240
	245	250
Gln Glu Ser Tyr Glu Asp Gly Pro Cys Thr Ile Thr Ser Asn Lys Asn		255
	260	265
Ser Asp Asn Asn Leu Leu Ser Leu Asp Gly Leu Asp Asn Glu Val Lys		270
	275	280
Asp Gly Leu Pro Asn Asn Phe Arg Ala His Pro Leu Gln Leu Glu Gln		285
	290	295
Ser Ser Asp Pro Ser Asn Ser Ile Asp Gly Pro Asp His Leu Arg Ser		300
305	310	315
Ala Ser Ser Leu His Glu Thr Lys Lys Gly Asn Thr Gly Ile Ile His		320
	325	330
Gly Ala Cys Leu Thr Leu Thr Asp His Asp Arg Ile Arg Gln Phe Ile		335
	340	345
Gln Lys Phe Thr Phe Arg Gly Leu Leu Pro His Ile Glu Lys Thr Ile		350
	355	360
Arg Gln Leu Asn Asp Gln Leu Ile Ser Arg Lys Gly Leu Ser Arg Ser		365
	370	375
Leu Phe Ser Ala Thr Lys Lys Trp Phe Ser Gly Ser Lys Val Pro Glu		380
385	390	395
Lys Ser Ile Asn Asp Leu Lys Asn Thr Ser Gly Leu Leu Tyr Pro Pro		400
	405	410
Glu Ala Pro Glu Leu Gln Ile Arg Lys Met Ala Asp Leu Cys Phe Leu		415
	420	425
Val Gln His Tyr Asp Leu Ala Tyr Ser Cys Tyr His Thr Ala Lys Lys		430
	435	440
Asp Phe Leu Asn Asp Gln Ala Met Leu Tyr Ala Ala Gly Ala Leu Glu		445
	450	455
Met Ala Ala Val Ser Ala Phe Leu Gln Pro Gly Ala Pro Arg Pro Tyr		460
465	470	475
Pro Ala His Tyr Met Asp Thr Ala Ile Gln Thr Tyr Arg Asp Ile Cys		480
	485	490
Lys Asn Met Val Leu Ala Glu Arg Cys Val Leu Leu Ser Ala Glu Leu		495
	500	505
Leu Lys Ser Gln Ser Lys Tyr Ser Glu Ala Ala Ala Leu Leu Ile Arg		510
	515	520
Leu Thr Ser Glu Asp Ser Asp Leu Arg Ser Ala Leu Leu Leu Glu Gln		525
	530	535
Ala Ala His Cys Phe Ile Asn Met Lys Ser Pro Met Val Arg Lys Tyr		540
545	550	555
Ala Phe His Met Ile Leu Ala Gly His Arg Phe Ser Lys Ala Gly Gln		560
	565	570
Lys Lys His Ala Leu Arg Cys Tyr Cys Gln Ala Met Gln Val Tyr Lys		575
	580	585
Gly Lys Gly Trp Ser Leu Ala Glu Asp His Ile Asn Phe Thr Ile Gly		590
	595	600
Arg Gln Ser Tyr Thr Leu Arg Gln Leu Asp Asn Ala Val Ser Ala Phe		605
	610	615
Arg His Ile Leu Ile Asn Glu Ser Lys Gln Ser Ala Ala Gln Gln Gly		620
625	630	635
Ala Phe Leu Arg Glu Tyr Leu Tyr Val Tyr Lys Asn Val Ser Gln Leu		640

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Ser	Pro	Asp	Gly	Pro	Leu	Pro	Gln	Leu	Pro	Leu	Pro	Tyr	Ile	Asn	Ser
			660					665					670		
Ser	Ala	Thr	Arg	Val	Phe	Phe	Gly	His	Asp	Arg	Arg	Pro	Ala	Asp	Gly
			675				680					685			
Glu	Lys	Gln	Ala	Ala	Thr	His	Val	Ser	Leu	Asp	Gln	Glu	Tyr	Asp	Ser
			690				695				700				
Glu	Ser	Ser	Gln	Gln	Trp	Arg	Glu	Leu	Glu	Glu	Gln	Val	Val	Ser	Val
705					710					715					720
Val	Asn	Lys	Gly	Val	Ile	Pro	Ser	Asn	Phe	His	Pro	Thr	Gln	Tyr	Cys
				725					730					735	
Leu	Asn	Ser	Tyr	Ser	Asp	Asn	Ser	Arg	Phe	Pro	Leu	Ala	Val	Val	Glu
			740					745					750		
Glu	Pro	Ile	Thr	Val	Glu	Val	Ala	Phe	Arg	Asn	Pro	Leu	Lys	Val	Leu
			755				760					765			
Leu	Leu	Leu	Thr	Asp	Leu	Ser	Leu	Leu	Trp	Lys	Phe	His	Pro	Lys	Asp
			770				775				780				
Phe	Ser	Gly	Lys	Asp	Asn	Glu	Glu	Val	Lys	Gln	Leu	Val	Thr	Ser	Glu
785					790					795					800
Pro	Glu	Met	Ile	Gly	Ala	Glu	Val	Ile	Ser	Glu	Phe	Leu	Ile	Asn	Gly
				805					810					815	
Glu	Glu	Ser	Lys	Val	Ala	Arg	Leu	Lys	Leu	Phe	Pro	His	His	Ile	Gly
			820					825					830		
Glu	Leu	His	Ile	Leu	Gly	Val	Val	Tyr	Asn	Leu	Gly	Thr	Ile	Gln	Gly
			835				840					845			
Ser	Met	Thr	Val	Asp	Gly	Ile	Gly	Ala	Leu	Pro	Gly	Cys	His	Thr	Gly
			850				855				860				
Lys	Tyr	Ser	Leu	Ser	Met	Ser	Val	Arg	Gly	Lys	Gln	Asp	Leu	Glu	Ile
865					870					875					880
Gln	Gly	Pro	Arg	Leu	Asn	Asn	Thr	Lys	Glu	Glu	Lys	Thr	Ser	Val	Lys
				885					890					895	
Tyr	Gly	Pro	Asp	Arg	Arg	Leu	Asp	Pro	Ile	Ile	Thr	Glu	Glu	Met	Pro
			900					905					910		
Leu	Leu	Glu	Val	Phe	Phe	Ile	His	Phe	Pro	Thr	Gly	Leu	Leu	Cys	Gly
			915				920					925			
Glu	Ile	Arg	Lys	Ala	Tyr	Val	Glu	Phe	Val	Asn	Val	Ser	Lys	Cys	Pro
			930				935				940				
Leu	Thr	Gly	Leu	Lys	Val	Val	Ser	Lys	Arg	Pro	Glu	Phe	Phe	Thr	Phe
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Gly	Gly	Asn	Thr	Ala	Val	Leu	Thr	Pro	Leu	Ser	Pro	Ser	Ala	Ser	Glu
				965					970					975	
Asn	Cys	Ser	Ala	Tyr	Lys	Thr	Val	Val	Thr	Asp	Ala	Thr	Ser	Val	Cys
			980					985				990			
Thr	Ala	Leu	Ile	Ser	Ser	Ala	Ser	Ser	Val	Asp	Phe	Gly	Ile	Gly	Thr
			995				100								

1075	1080	1085
Asn Ser Leu Glu Asn Glu Glu Gly Arg Gly Gly Asn Met Leu Val Phe		
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Val Asp Val Glu Asn Thr Asn Thr Ser Glu Ala Gly Val Lys Glu Phe		
1105	1110	1115
His Ile Val Gln Val Ser Ser Ser Ser Lys His Trp Lys Leu Gln Lys		
1125	1130	1135
Ser Val Asn Leu Ser Glu Asn Lys Asp Ala Lys Leu Ala Ser Arg Glu		
1140	1145	1150
Lys Gly Lys Phe Cys Phe Lys Ala Ile Arg Cys Glu Lys Glu Glu Ala		
1155	1160	1165
Ala Thr Gln Ser Ser Glu Lys Tyr Thr Phe Ala Asp Ile Ile Phe Gly		
1170	1175	1180
Asn Glu Gln Ile Ile Ser Ser Ala Ser Pro Cys Ala Asp Phe Phe Tyr		
1185	1190	1195
Arg Ser Leu Ser Ser Glu Leu Lys Lys Pro Gln Ala His Leu Pro Val		
1205	1210	1215
His Thr Glu Lys Gln Ser Thr Glu Asp Ala Val Arg Leu Ile Gln Lys		
1220	1225	1230
Cys Ser Glu Val Asp Leu Asn Ile Val Ile Leu Trp Lys Ala Tyr Val		
1235	1240	1245
Val Glu Asp Ser Lys Gln Leu Ile Leu Glu Gly Gln His His Val Ile		
1250	1255	1260
Leu Arg Thr Ile Gly Lys Glu Ala Phe Ser Tyr Pro Gln Lys Gln Glu		
1265	1270	1275
Pro Pro Glu Met Glu Leu Leu Lys Phe Phe Arg Pro Glu Asn Ile Thr		
1285	1290	1295
Val Ser Ser Arg Pro Ser Val Glu Gln Leu Ser Ser Leu Ile Lys Thr		
1300	1305	1310
Ser Leu His Tyr Pro Glu Ser Phe Asn His Pro Phe His Gln Lys Ser		
1315	1320	1325
Leu Cys Leu Val Pro Val Thr Leu Leu Leu Ser Asn Cys Ser Lys Ala		
1330	1335	1340
Asp Val Asp Val Ile Val Asp Leu Arg His Lys Thr Thr Ser Pro Glu		
1345	1350	1355
Ala Leu Glu Ile His Gly Ser Phe Thr Trp Leu Gly Gln Thr Gln Tyr		
1365	1370	1375
Lys Leu Gln Leu Lys Ser Gln Glu Ile His Ser Leu Gln Leu Lys Ala		
1380	1385	1390
Cys Phe Val His Thr Gly Val Tyr Asn Leu Gly Thr Pro Arg Val Phe		
1395	1400	1405
Ala Lys Leu Ser Asp Gln Val Thr Val Phe Glu Thr Ser Gln Gln Asn		
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Ser Met Pro Ala Leu Ile Ile Ile Ser Asn Val		
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<210> 3915

<211> 1802

<212> DNA

<213> Homo sapiens

<400> 3915

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120
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420
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540
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1320
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1380
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1680

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 1800
 aa
 1802

<210> 3916

<211> 342

<212> PRT

<213> Homo sapiens

<400> 3916

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			20					25					30		
Ala	Ser	Thr	Asp	Ala	Val	Ser	Ala	Leu	Leu	Glu	Gln	Thr	Ala	Val	Glu
			35				40					45			
Leu	Glu	Lys	Arg	Gln	Glu	Gly	Arg	Ser	Ser	Thr	Gln	Thr	Leu	Glu	Asp
	50					55					60				
Ser	Trp	Arg	Tyr	Glu	Glu	Thr	Ser	Glu	Asn	Glu	Ala	Val	Ala	Glu	Glu
65					70					75				80	
Glu	Glu	Glu	Glu	Val	Glu	Glu	Glu	Gly	Glu	Glu	Asp	Val	Phe	Thr	Glu
			85					90					95		
Lys	Ala	Ser	Pro	Asp	Met	Asp	Gly	Tyr	Pro	Ala	Leu	Lys	Val	Asp	Lys
			100					105					110		
Glu	Thr	Asn	Thr	Glu	Thr	Pro	Ala	Pro	Ser	Pro	Thr	Val	Val	Arg	Pro
		115					120					125			
Lys	Asp	Arg	Arg	Val	Gly	Thr	Pro	Ser	Gln	Gly	Pro	Phe	Leu	Arg	Gly
	130					135				140					
Ser	Thr	Ile	Ile	Arg	Ser	Lys	Thr	Phe	Ser	Pro	Gly	Pro	Gln	Ser	Gln
145					150					155				160	
Tyr	Val	Cys	Arg	Leu	Asn	Arg	Ser	Asp	Ser	Asp	Ser	Ser	Thr	Leu	Ser
			165					170					175		
Lys	Lys	Pro	Pro	Phe	Val	Arg	Asn	Ser	Leu	Glu	Arg	Arg	Ser	Val	Arg
			180					185					190		
Met	Lys	Arg	Pro	Ser	Pro	Pro	Pro	Gln	Pro	Ser	Ser	Val	Lys	Ser	Leu
	195						200					205			
Arg	Ser	Glu	Arg	Leu	Ile	Arg	Thr	Ser	Leu	Asp	Leu	Glu	Leu	Asp	Leu
	210					215					220				
Gln	Ala	Thr	Arg	Thr	Trp	His	Ser	Gln	Leu	Thr	Gln	Glu	Ile	Ser	Val
225					230					235				240	
Leu	Lys	Glu	Leu	Lys	Glu	Gln	Leu	Glu	Gln	Ala	Lys	Ser	His	Gly	Glu
			245						250				255		
Lys	Glu	Leu	Pro	Gln	Trp	Leu	Arg	Glu	Asp	Glu	Arg	Phe	Arg	Leu	Leu
		260					265					270			
Leu	Arg	Met	Leu	Glu	Lys	Arg	Gln	Met	Asp	Arg	Ala	Glu	His	Lys	Gly
	275						280				285				
Glu	Leu	Gln	Thr	Asp	Lys	Met	Met	Arg	Ala	Ala	Ala	Lys	Asp	Val	His
	290					295					300				
Arg	Leu	Arg	Gly	Gln	Ser	Cys	Lys	Glu	Pro	Pro	Glu	Val	Gln	Ser	Phe
305					310					315				320	
Arg	Glu	Lys	Met	Ala	Phe	Phe	Thr	Arg	Pro	Arg	Met	Asn	Ile	Pro	Ala

325
Leu Ser Ala Asp Asp Val
340

330

335

<210> 3917

<211> 597

<212> DNA

<213> Homo sapiens

<400> 3917

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120
taacatcaga aacaggtgag aatgaccact ttaactcacc gggcccgtcg cactgaaata
180
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gacaatgaag attctggaga ctctaaggat atccgcctta ctcttatgga agaagtattg
300
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360
ggcctgagag ggggcatcct gatagagctg gccatgcggg gtcgaatcta tctggaaccc
420
ccgaccatgc gtaagaagcg actactagac agaaaggtag tgctaaagtc agacagccca
480
acaggtgatg ttttactgga tgaaactctg aaacacatca aagcaactga acccacagaa
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597

<210> 3918

<211> 152

<212> PRT

<213> Homo sapiens

<400> 3918

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Pro Asp Asn Glu Asp Ser Gly Asp Ser Lys Asp Ile Arg Leu Thr Leu
35 40 45
Met Glu Glu Val Leu Leu Leu Gly Leu Lys Asp Lys Glu Gly Tyr Thr
50 55 60
Ser Phe Trp Asn Asp Cys Ile Ser Ser Gly Leu Arg Gly Gly Ile Leu
65 70 75 80
Ile Glu Leu Ala Met Arg Gly Arg Ile Tyr Leu Glu Pro Pro Thr Met
85 90 95
Arg Lys Lys Arg Leu Leu Asp Arg Lys Val Leu Leu Lys Ser Asp Ser
100 105 110
Pro Thr Gly Asp Val Leu Leu Asp Glu Thr Leu Lys His Ile Lys Ala
115 120 125
Thr Glu Pro Thr Glu Thr Val Gln Thr Trp Ile Glu Leu Leu Thr Gly

130
Glu Thr Trp Asn Pro Phe Lys Leu
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150

140

<210> 3919
<211> 1278
<212> DNA
<213> Homo sapiens

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120
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240
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420
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480
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540
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660
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720
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780
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1080
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1200
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<210> 3920
 <211> 426
 <212> PRT
 <213> Homo sapiens

<400> 3920

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Leu Thr Gln Glu Arg Asp Tyr Leu Gln Ala Gln His Pro Pro Ser Pro
      35           40           45
Ile Lys Ser Ser Ser Ala Asp Ser Thr Pro Ser Pro Thr Ser Ser Leu
      50           55           60
Ser Ser Glu Asp Lys Gln His Leu Ala Val Glu Leu Ala Asp Thr Lys
      65           70           75           80
Ala Arg Leu Arg Arg Val Arg Gln Glu Leu Glu Asp Lys Thr Glu Gln
      85           90           95
Leu Val Asp Thr Arg His Glu Val Asp Gln Leu Val Leu Glu Leu Gln
      100          105          110
Lys Val Lys Gln Glu Asn Ile Gln Leu Ala Ala Asp Ala Arg Ser Ala
      115          120          125
Arg Ala Tyr Arg Asp Glu Leu Asp Ser Leu Arg Glu Lys Ala Asn Arg
      130          135          140
Val Glu Arg Leu Glu Leu Glu Leu Thr Arg Cys Lys Glu Lys Leu His
      145          150          155          160
Asp Val Asp Phe Tyr Lys Ala Arg Met Glu Glu Leu Arg Glu Asp Asn
      165          170          175
Ile Ile Leu Ile Glu Thr Lys Ala Met Leu Glu Glu Gln Leu Thr Ala
      180          185          190
Ala Arg Ala Arg Gly Asp Lys Val His Glu Leu Glu Lys Glu Asn Leu
      195          200          205
Gln Leu Lys Ser Lys Leu His Asp Leu Glu Leu Asp Arg Asp Thr Asp
      210          215          220
Lys Lys Arg Ile Glu Glu Leu Leu Glu Glu Asn Met Val Leu Glu Ile
      225          230          235          240
Ala Gln Lys Gln Ser Met Asn Glu Ser Ala His Leu Gly Trp Glu Leu
      245          250          255
Glu Gln Leu Ser Lys Asn Ala Asp Leu Ser Asp Ala Ser Arg Lys Ser
      260          265          270
Phe Val Phe Glu Leu Asn Glu Cys Ala Ser Ser Arg Ile Leu Lys Leu
      275          280          285
Glu Lys Glu Asn Gln Ser Leu Gln Ser Thr Ile Gln Gly Leu Arg Asp
      290          295          300
Ala Ser Leu Val Leu Glu Glu Ser Gly Leu Lys Cys Gly Glu Leu Glu
      305          310          315          320
Lys Glu Asn His Gln Leu Ser Lys Lys Ile Glu Lys Leu Gln Thr Gln
      325          330          335
Leu Glu Arg Glu Lys Gln Ser Asn Gln Asp Leu Glu Thr Leu Ser Glu
      340          345          350
Glu Leu Ile Arg Glu Lys Glu Gln Leu Gln Ser Asp Met Glu Thr Leu
      355          360          365
Lys Ala Asp Lys Ala Arg Gln Ile Lys Asp Leu Glu Gln Glu Lys Asp

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370	375	380
His Leu Asn Arg Ala Met Trp Ser Leu Arg Glu Arg Ser Gln Val Ser		
385	390	395
Ser Glu Ala Arg Met Lys Asp Val Glu Lys Glu Asn Lys Ala Leu His		400
	405	410
Gln Thr Val Thr Glu Ala Asn Gly Lys Leu		415
	420	425

<210> 3921
 <211> 413
 <212> DNA
 <213> Homo sapiens

<400> 3921
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 240
 gagggttcca gagaatgggc ctggcgttct gcaagcctgg caccctcct ggatgctttt
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<210> 3922
 <211> 126
 <212> PRT
 <213> Homo sapiens

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35 40 45
Asp Ser Val Gly Pro Ile Pro Ala Pro Arg Gly Asp Gly Cys Cys Arg
50 55 60
Asp Val Gln Ala Val Glu Gly Ser Arg Glu Trp Ala Trp Arg Ser Ala
65 70 75 80
Ser Leu Ala Pro Leu Leu Asp Ala Phe Leu Gln Pro Leu Glu Leu Arg
85 90 95
Gln Cys Ser Val Arg Met Ile Ile Gly Phe Pro Pro Gln Phe Leu Ala
100 105 110
His Ser Phe Val Ala Leu Val Thr Ala Phe Cys Asp Asn Ile
115 120 125

<210> 3923
 <211> 820

<212> DNA

<213> Homo sapiens

<400> 3923

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<210> 3924

<211> 250

<212> PRT

<213> Homo sapiens

<400> 3924

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20          25          30
Ser Glu Tyr Thr Gly Pro Thr Ser Ala Asp Leu Asp His Phe Pro Ser
35          40          45
Val Ser Gln Thr Lys Ala Glu Gln Asp Ser Asp Asn Lys Ser Ser Thr
50          55          60
Glu Ile Pro Leu Glu Thr Cys Cys Ser Ser Glu Leu Lys Gly Gly Gly
65          70          75          80
Ser Gly Thr Ser Leu Glu Arg Glu Gln Phe Glu Gly Leu Gly Ser Thr
85          90          95
Pro Asp Ala Lys Leu Asp Lys Thr Cys Ile Ser Arg Ala Met Lys Ile
100         105         110
Thr Thr Val Asn Ser Val Leu Pro Gln Asn Ser Val Leu Gly Gly Val

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115	120	125
Leu Lys Thr Lys Gln Gln	Leu Lys Thr Leu Asn His	Phe Asp Leu Thr
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145	150	155
Arg Arg Gly Arg Lys Arg	His Cys Lys Thr Lys	His Leu Glu Gln Asn
165	170	175
Gly Ser Leu Lys Lys Leu	Arg Gln Thr Ser Gly	Glu Val Gly Leu Ala
180	185	190
Pro Thr Asp Pro Val Leu	Arg Glu Met Glu Gln	Lys Leu Gln Gln Glu
195	200	205
Glu Glu Asp Arg Gln Leu	Ala Leu Gln Leu Gln	Arg Met Phe Asp Asn
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<210> 3925

<211> 3296

<212> DNA

<213> Homo sapiens

<400> 3925

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900

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<210> 3926

<211> 683

<212> PRT

<213> Homo sapiens

<400> 3926

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			20					25					30		
Thr	Arg	Pro	Gln	Pro	Val	Leu	Pro	Leu	Leu	Asp	Leu	Asn	Asn	Gln	Ser
			35					40				45			
Val	Gly	Ile	Glu	Gly	Gly	Ala	Arg	Lys	Gly	Val	Ser	Gln	Lys	Asn	Asn
			50			55					60				
Asp	Leu	Thr	Ser	Cys	Cys	Phe	Ser	Asp	Ala	Lys	Thr	Met	Tyr	Glu	Val
65					70				75					80	
Phe	Gln	Arg	Gly	Leu	Ala	Val	Ser	Asp	Asn	Gly	Pro	Cys	Leu	Gly	Tyr
			85					90						95	
Arg	Lys	Pro	Asn	Gln	Pro	Tyr	Arg	Trp	Leu	Ser	Tyr	Lys	Gln	Val	Ser
			100					105					110		
Asp	Arg	Ala	Glu	Tyr	Leu	Gly	Ser	Cys	Leu	Leu	His	Lys	Gly	Tyr	Lys
			115				120					125			
Ser	Ser	Pro	Asp	Gln	Phe	Val	Gly	Ile	Phe	Ala	Gln	Asn	Arg	Pro	Glu
			130				135					140			
Trp	Ile	Ile	Ser	Glu	Leu	Ala	Cys	Tyr	Thr	Tyr	Ser	Met	Val	Ala	Val
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Pro	Leu	Tyr	Asp	Thr	Leu	Gly	Pro	Glu	Ala	Ile	Val	His	Ile	Val	Asn

3088

595	600	605
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Lys Ile Gly Lys Glu Ser Gly Leu Lys Thr Phe Glu Gln Val Lys Ala		
625	630	635
Ile Phe Leu His Pro Glu Pro Phe Ser Ile Glu Asn Gly Leu Leu Thr		
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<210> 3927

<211> 3197

<212> DNA

<213> Homo sapiens

<400> 3927

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<210> 3928

<211> 180

<212> PRT

<213> Homo sapiens

<400> 3928

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			20					25					30		
Asp	Ser	Ser	Ser	Arg	Arg	Arg	Arg	Ser	Cys	Cys	Thr	Gly	Ser	Leu	Gly
		35					40					45			
Pro	Met	Pro	Arg	Leu	Pro	Ser	Leu	Trp	Pro	Leu	Ser	Leu	Pro	Leu	Arg
	50					55				60					
Ser	Leu	Ser	Ser	Pro	His	Arg	Val	Gln	Gly	Leu	Gly	Pro	Pro	Arg	Arg
65					70				75					80	
Leu	Lys	Ser	Gln	Leu	Leu	Pro	Arg	Phe	Phe	Trp	Arg	Arg	Gln	Gln	Glu
			85						90					95	
Pro	Leu	Ser	Ser	Phe	Pro	Gly	Arg	Asn	Glu	Gly	Gly	Ser	Glu	Met	Glu
			100					105					110		
Ile	Leu	Gly	Val	Cys	Pro	Val	Ser	Pro	Gly	Ala	Leu	Ser	Tyr	Met	Glu
		115					120					125			
Ser	Pro	Thr	Gly	Phe	Trp	Arg	Pro	Arg	Glu	Ala	Ser	Ser	Leu	Glu	Leu
	130					135					140				
Ala	Lys	Gly	Ile	Ser	Lys	Arg	Arg	His	Phe	Leu	Pro	Ala	Pro	Ala	Leu
145					150					155					160
Cys	Pro	Asn	Pro	Arg	Ser	Ser	Glu	Ala	Phe	Pro	Gly	Ala	Val	Cys	Val
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Thr	Leu	Ala	Ile												
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<210> 3929

<211> 470

<212> DNA

<213> Homo sapiens

<400> 3929

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<210> 3930

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3930

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		20						25					30		
Gln	Ser	Glu	Asn	Glu	Ala	Ser	Pro	Val	Lys	Arg	Pro	Arg	Leu	Leu	Glu
		35					40					45			
Asn	Thr	Glu	Arg	Ser	Glu	Glu	Thr	Ser	Arg	Ser	Lys	Gln	Lys	Ser	Arg
	50					55					60				
Arg	Arg	Cys	Phe	Gln	Cys	Gln	Thr	Lys	Leu	Glu	Leu	Val	Gln	Gln	Glu
65					70				75					80	
Leu	Gly	Ser	Cys	Arg	Cys	Gly	Tyr	Val	Phe	Cys	Met	Leu	His	Arg	Leu
			85					90					95		
Pro	Glu	Gln	His	Asp	Cys	Thr	Phe	Asp	His	Met	Gly	Val	Ala	Gly	Arg
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Ser	His	His													
		115													

<210> 3931

<211> 3568

<212> DNA

<213> Homo sapiens

<400> 3931

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120
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180

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<212> DNA

<213> Homo sapiens

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<211> 130

<212> PRT

<213> Homo sapiens

<400> 3934

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<213> Homo sapiens

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Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg Thr Ser
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Gly Leu Pro Gly Ala Cys Gly Ala Ala Ile Cys Gln Pro Pro Cys Arg
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Asn Gly Gly Ser Cys Val Gln Pro Gly Arg Cys Arg Cys Pro Ala Gly
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Trp Arg Gly Asp Thr Cys Gln Ser Asp Val Asp Glu Cys Ser Ala Arg
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Arg Gly Gly Cys Pro Gln Arg Cys Val Asn Thr Ala Gly Ser Tyr Trp
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Cys Gln Cys Trp Glu Gly His Ser Leu Ser Ala Asp Gly Thr Leu Cys
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Val Pro Lys Gly Gly Pro Pro Arg Val Ala Pro Asn Pro Thr Gly Lys
          180          185          190
Gln Pro Trp Leu Cys Leu Ala Trp Gly Gly Gly Gln Ala Val Asp Ile
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Ala Val Trp Leu Leu Gly Met Val Gly Gly Thr Gly Ile Trp Ala Glu
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<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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720
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960
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1260
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1380
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1680
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1800
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1920
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2077

<210> 3942

<211> 89
 <212> PRT
 <213> Homo sapiens

<400> 3942
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 20 25 30
 Gln Glu Arg Leu Arg Leu Thr Arg Gly Trp Ser Pro Gln Gly Gly Cys
 35 40 45
 Gly Ala Arg Ser Gln Ser Thr Pro Ser Ser Asp Thr Leu Pro Pro Ala
 50 55 60
 Leu Leu Gly Ser Pro Ala Ser Val Ser Gly Thr Gly Gly Thr Asp Met
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 Ser Ser Ala Asn Ala His Ser Ala Leu
 85

<210> 3943
 <211> 1524
 <212> DNA
 <213> Homo sapiens

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 120
 gggaagccgc agccgcagga cgaggacgac gcggaggagg aggaggagga ggatgagctg
 180
 gtgggggctag cggactacgg agacggggccc gactcctccg acgccgatcc ggacagcggc
 240
 acagaggagg gagttctgga cttcagtgac cccttcagca ctgaagtga gccgagaatc
 300
 ctgctcatgg gcctgaggag aagcggcaag tcgtctattc agaaagttgt ctttcacaaa
 360
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 420
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 480
 gacctacat ttgactatga gatgatcttc cggggaacag gagcattgat atttgtcatt
 540
 gacgcacagg atgactacat ggaggcttta acaagacttc acattactgt ttctaaagcc
 600
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 660
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 720
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 780
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 840
 aatttgctga acatctttat ctcaaattct ggaattgaaa aggcatttct atttgatgtg
 900

gtcagtaaaa tttatattgc aactgatagt actccggtgg atatgcaaac ctatgagctc
 960
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 1080
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 1200
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 1260
 aagaaaaaga gagccacccc taatgggacc cctagagtgc tgctgtaggt gaggtttcag
 1320
 gaatgtcttt tgaaatcaga ccttatccat gaggtctgtg cgccatgttg cactaaagga
 1380
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 1524

<210> 3944

<211> 435

<212> PRT

<213> Homo sapiens

<400> 3944

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Arg	Leu	Gly	Pro	Thr	Pro	Gly	Pro	Pro	Ser	Pro	Gly	Arg	Pro	Ala	
			20					25					30		
Val	Gly	Thr	Met	Ser	Gln	Val	Leu	Gly	Lys	Pro	Gln	Pro	Gln	Asp	Glu
			35				40				45				
Asp	Asp	Ala	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Glu	Leu	Val	Gly	Leu	Ala
			50				55				60				
Asp	Tyr	Gly	Asp	Gly	Pro	Asp	Ser	Ser	Asp	Ala	Asp	Pro	Asp	Ser	Gly
65					70					75				80	
Thr	Glu	Glu	Gly	Val	Leu	Asp	Phe	Ser	Asp	Pro	Phe	Ser	Thr	Glu	Val
				85					90					95	
Lys	Pro	Arg	Ile	Leu	Leu	Met	Gly	Leu	Arg	Arg	Ser	Gly	Lys	Ser	Ser
			100					105					110		
Ile	Gln	Lys	Val	Val	Phe	His	Lys	Met	Ser	Pro	Asn	Glu	Thr	Leu	Phe
			115				120					125			
Leu	Glu	Ser	Thr	Asn	Lys	Ile	Cys	Arg	Glu	Asp	Val	Ser	Asn	Ser	Ser
			130			135					140				
Phe	Val	Asn	Phe	Gln	Ile	Trp	Asp	Phe	Pro	Gly	Gln	Ile	Asp	Phe	Phe
145				150						155				160	
Asp	Pro	Thr	Phe	Asp	Tyr	Glu	Met	Ile	Phe	Arg	Gly	Thr	Gly	Ala	Leu
			165						170					175	
Ile	Phe	Val	Ile	Asp	Ala	Gln	Asp	Asp	Tyr	Met	Glu	Ala	Leu	Thr	Arg
			180				185						190		
Leu	His	Ile	Thr	Val	Ser	Lys	Ala	Tyr	Lys	Val	Asn	Pro	Asp	Met	Asn

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<210> 3945
<211> 696
<212> DNA
<213> Homo sapiens
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120
cgggcgcgcc cagcagtagc accgcccgcg cccgcccctg gacacttgta agtttcgatt
180
tccgatttcc gcggaaccga gtcccgcgcc gcggcagagc cagcacagcc agcgcgccat
240
ggcggacccg gaggtgtgct gcttcatcac caaaatcctg tgcgcccacg ggggccgcat
300
ggccctggac gcgctgctcc aggagatcgc gctgtctgag ccgcagctct gtgaggtgct
360
gcaggtggcc gggcccgacc gctttgtggt gttggagacc ggcggcgagg ccgggatcac
420
ccgatcggtg gtggccacca ctcgagcccg ggtctgccgt cgcaagtact gccagagacc
480
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ctgcgataac ctgcatctct gcaaactcaa cttgctgggc cggtgcaact attcgagtc
 540
 cgagcgggaat ttatgcaaat attctcatga ggttctctca gaagagaact tcaaagtcct
 600
 gaaaaatcac gaactctctg gactgaacaa agaggaatta gcagtgtctcc tctccaaag
 660
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 696

<210> 3946

<211> 165

<212> PRT

<213> Homo sapiens

<400> 3946

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Gly	Ser	Ser	Gly	Gly	His	His	Arg	Ser	Gly	Asp	Pro	Gly	Leu	Ala	Ala
			20					25					30		
Gly	Leu	Gln	His	His	Lys	Ala	Val	Gly	Pro	Gly	His	Leu	Gln	His	Leu
			35				40					45			
Thr	Glu	Leu	Arg	Leu	Arg	Gln	Arg	Asp	Leu	Leu	Glu	Gln	Arg	Val	Gln
	50					55					60				
Gly	His	Ala	Ala	Pro	Val	Gly	Ala	Gln	Asp	Phe	Gly	Asp	Glu	Ala	Ala
65					70					75				80	
His	Leu	Arg	Val	Arg	His	Gly	Ala	Leu	Ala	Val	Leu	Ala	Leu	Pro	Arg
			85					90						95	
Arg	Gly	Thr	Arg	Phe	Arg	Gly	Asn	Arg	Lys	Ser	Lys	Leu	Thr	Ser	Val
			100					105					110		
Gln	Gly	Arg	Ala	Arg	Ala	Val	Leu	Leu	Gly	Ala	Pro	Gly	Val	Ser	
		115				120					125				
Glu	Gly	Ala	Leu	Ser	Val	Ala	Val	Ser	Pro	Ala	Gln	Arg	Ser	Thr	Leu
	130					135					140				
Gly	Ser	Gln	Val	Lys	Arg	Leu	Asp	Leu	Thr	Asp	Arg	Val	Leu	Val	Ala
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Gly	Leu	Gln	Pro	Ala											
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<210> 3947

<211> 400

<212> DNA

<213> Homo sapiens

<400> 3947

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 180
 gccagcgagc aggtaatcaa agacctaaag ggctcggact acagctggtc ctaccagacc
 240
 ccaccctcat caccagcag ctccagctcc cggaagtcca gcatgtgcag tgccccagc
 300

agcagtagca gtgccaaggg tggcggaagc cccatggcct gggggtgccc aaacatactc
 360
 acccagttcc acctgtcgct accgcagcct ggcgcagcca
 400

<210> 3948
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 3948
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 Phe Cys Thr Phe Ile Thr Phe Leu Gln Pro Val Val Asn Gly Glu Leu
 20 25 30
 Thr Met Leu Gly Glu Ile Thr His Leu Gln Gly Ile Ile Asp Asp Leu
 35 40 45
 Val Val Leu Thr Ala Glu Pro His Lys Leu Pro Pro Ala Ser Glu Gln
 50 55 60
 Val Ile Lys Asp Leu Lys Gly Ser Asp Tyr Ser Trp Ser Tyr Gln Thr
 65 70 75 80
 Pro Pro Ser Ser Pro Ser Ser Ser Ser Ser Arg Lys Ser Ser Met Cys
 85 90 95
 Ser Ala Pro Ser Ser Ser Ser Ala Lys Gly Gly Gly Ser Pro Met
 100 105 110
 Ala Trp Gly Cys Pro Asn Ile Leu Thr Gln Phe His Leu Ser Leu Pro
 115 120 125
 Gln Pro Gly Ala Ala
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<210> 3949
 <211> 1462
 <212> DNA
 <213> Homo sapiens

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 120
 ccaccatctt tctggctgca agagtcaggg gtcagaatgg ggggcagcca ccaactgctga
 180
 aaagagttgg gggaggaacc cctgaaagga gagccagaaa tgggggagct ccaaactctt
 240
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 300
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 360
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 420
 attgggtaag atagctgggt cagctgtcct tggatggatc ccaaacta tgctcctttc
 480
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 540

atcactgagc tgcaccaccc ttttcttctt cattgctttc aagagctcat acttatagtg
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 660
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 720
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 780
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 900
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 960
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 1080
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 1200
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 1462

<210> 3950

<211> 351

<212> PRT

<213> Homo sapiens

<400> 3950

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Ser	Leu	Leu	Ser	Asp	Gln	Leu	Gly	Cys	Glu	Val	Leu	Asn	Leu	Leu	Thr
		20					25					30			
Ala	Gln	Gln	Tyr	Glu	Ile	Phe	Ser	Arg	Ser	Leu	Arg	Lys	Asn	Arg	Glu
		35				40					45				
Leu	Phe	Val	His	Gly	Leu	Pro	Gly	Ser	Gly	Lys	Asn	Ile	Met	Ala	Met
	50				55					60					
Lys	Ile	Met	Glu	Lys	Ile	Arg	Asn	Val	Phe	His	Cys	Glu	Ala	His	Arg
65			70					75					80		
Ile	Leu	Tyr	Val	Cys	Glu	Asn	Gln	Pro	Leu	Arg	Asn	Phe	Ile	Ser	Asp
		85				90						95			
Arg	Asn	Ile	Cys	Arg	Ala	Glu	Thr	Arg	Glu	Thr	Phe	Leu	Arg	Glu	Lys
		100				105					110				
Phe	Glu	His	Ile	Gln	His	Ile	Val	Ile	Asp	Glu	Ala	Gln	Asn	Phe	Arg

	115		120		125										
Thr	Glu	Asp	Gly	Asp	Trp	Tyr	Gly	Lys	Ala	Lys	Ser	Ile	Thr	Gln	Arg
	130						135					140			
Glu	Lys	Asp	Cys	Pro	Gly	Val	Leu	Trp	Ile	Phe	Leu	Asp	Tyr	Phe	Gln
145					150					155					160
Thr	Ser	His	Leu	Gly	His	Ser	Gly	Leu	Pro	Pro	Leu	Ser	Asp	Gln	Tyr
			165						170					175	
Pro	Arg	Glu	Glu	Leu	Thr	Arg	Ile	Val	Arg	Asn	Ala	Asp	Glu	Ile	Ala
			180					185					190		
Glu	Tyr	Leu	Gln	Lys	Glu	Met	Gln	Leu	Ile	Ile	Glu	Asn	Pro	Pro	Ile
	195						200					205			
Asn	Ile	Pro	Thr	Gly	Cys	Leu	Glu	Val	Phe	Pro	Glu	Ala	Glu	Trp	Ser
	210					215						220			
Gln	Gly	Val	Gln	Gly	Thr	Leu	Arg	Ile	Lys	Lys	Tyr	Leu	Thr	Val	Glu
225					230						235				240
Gln	Ile	Met	Thr	Cys	Val	Ala	Asp	Thr	Cys	Arg	Arg	Phe	Phe	Asp	Arg
			245						250					255	
Gly	Tyr	Ser	Pro	Lys	Asp	Val	Ala	Val	Leu	Val	Ser	Thr	Ala	Lys	Glu
			260					265					270		
Val	Glu	His	Tyr	Lys	Tyr	Glu	Leu	Leu	Lys	Ala	Met	Arg	Lys	Lys	Arg
	275						280					285			
Val	Val	Gln	Leu	Ser	Asp	Ala	Cys	Asp	Met	Leu	Gly	Asp	His	Ile	Val
	290					295					300				
Leu	Asp	Ser	Val	Arg	Arg	Phe	Ser	Gly	Leu	Glu	Arg	Ser	Ile	Val	Phe
305					310					315					320
Gly	Ile	His	Pro	Arg	Thr	Ala	Asp	Pro	Ala	Ile	Leu	Pro	Asn	Ile	Leu
			325						330					335	
Ile	Cys	Leu	Ala	Ser	Arg	Ala	Lys	Gln	His	Leu	Tyr	Ile	Phe	Leu	
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<210> 3951
 <211> 1012
 <212> DNA
 <213> Homo sapiens

<400> 3951
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 120
 gtccaggagt tccaggttcc ggattatggt ccatggcagc agtccaagca ggaaaccaag
 180
 ccctctactc tgcctccagt ccaacaagcc aacagccttc atacaagcaa aatgaagact
 240
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 300
 ccgaagaatc caagagaact acatagaagg cggaagttgg accctgggaa gatgcatgcc
 360
 aaaatctggt taatgaagac ctcgctcagg agcgggaggg ccgctctgcg agagctccga
 420
 agccgtgaga acttcctcag caagctcaac cgggagctga tcgagaccat ccaggagatg
 480
 gagaacagca cgaccctgca cgtgcgggcc ctgctgcagc agcaggacac cctggcgacc
 540

atcatcgaca tcttggagta ctcaaacaag aagaggctgc agcaattgaa atctgagctt
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 780
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<210> 3952

<211> 188

<212> PRT

<213> Homo sapiens

<400> 3952

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Thr	Val	Val	Thr	Ser	Cys	Gln	Pro	Lys	Asn	Pro	Arg	Glu	Leu	His	Arg
			20					25					30		
Arg	Arg	Lys	Leu	Asp	Pro	Gly	Lys	Met	His	Ala	Lys	Ile	Trp	Leu	Met
		35					40					45			
Lys	Thr	Ser	Leu	Arg	Ser	Gly	Arg	Ala	Ala	Leu	Arg	Glu	Leu	Arg	Ser
	50					55					60				
Arg	Glu	Asn	Phe	Leu	Ser	Lys	Leu	Asn	Arg	Glu	Leu	Ile	Glu	Thr	Ile
65					70					75					80
Gln	Glu	Met	Glu	Asn	Ser	Thr	Thr	Leu	His	Val	Arg	Ala	Leu	Leu	Gln
				85					90					95	
Gln	Gln	Asp	Thr	Leu	Ala	Thr	Ile	Ile	Asp	Ile	Leu	Glu	Tyr	Ser	Asn
			100					105						110	
Lys	Lys	Arg	Leu	Gln	Gln	Leu	Lys	Ser	Glu	Leu	Gln	Glu	Trp	Glu	Glu
		115					120					125			
Lys	Lys	Lys	Cys	Lys	Met	Ser	Tyr	Leu	Glu	Gln	Gln	Ala	Glu	Gln	Leu
		130				135					140				
Asn	Ala	Lys	Ile	Glu	Lys	Thr	Gln	Glu	Glu	Val	Asn	Phe	Leu	Ser	Thr
145					150					155					160
Tyr	Met	Asp	His	Glu	Tyr	Ser	Ile	Lys	Ser	Val	Gln	Ile	Ser	Thr	Leu
			165						170					175	
Met	Arg	His	Cys	Ser	Arg	Leu	Arg	Thr	Ala	Ser	Arg				
			180						185						

<210> 3953

<211> 2900

<212> DNA

<213> Homo sapiens

<400> 3953

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120
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<211> 627

<212> PRT

<213> Homo sapiens

<400> 3954

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 His Asn Glu Asn Leu Asn Gly Val Pro Ser Ile Thr Asn Pro Ile Lys
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 405 410 415
 Val Ser Val Phe Leu Gly Phe Leu Leu Phe Leu Ile Pro Ala Lys Lys
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Phe Leu Pro Ile Leu Cys Ser Leu Ser Glu Thr Met His Ile Asn Pro				
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Leu Tyr Thr Leu Ile Pro Val Thr Met Cys Ile Ser Phe Ala Val Met				
545		550		555
Leu Pro Val Gly Asn Pro Pro Asn Ala Ile Val Phe Ser Tyr Gly His				560
	565		570	575
Cys Gln Ile Lys Asp Met Val Lys Ala Gly Leu Gly Val Asn Val Ile				
	580		585	590
Gly Leu Val Ile Val Met Val Ala Ile Asn Thr Trp Gly Val Ser Leu				
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 <212> DNA
 <213> Homo sapiens

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 <212> PRT
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<400> 3956

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 35 40 45
 Lys Glu Val Ser Ser Ser Glu Asn Pro Ser Ser His Ser Lys Val Arg
 50 55 60
 Ser Val Ile Met Val Val Phe Ala Glu Asp Lys Ser Arg Glu Asp Gln
 65 70 75 80
 Leu Arg His Trp Lys Tyr Trp His Ser Arg Gln His Thr Ala Lys Gln
 85 90 95
 Arg Cys Ile Asp Ile Ala Asp Tyr Lys Glu Ser Phe Asn Thr Ile Ser
 100 105 110
 Asn Ile Glu Glu Ile Ala Tyr Asn Ala Ile Ser Phe Thr Trp Asp Ile
 115 120 125
 Asn Asp Glu Ala Lys Val Phe Ile Ser Val Asn Cys Leu Ser Thr Asp
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<211> 3891

<212> DNA

<213> Homo sapiens

<400> 3957

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 <212> PRT
 <213> Homo sapiens

<400> 3958

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Thr	Pro	Asp	Ser	Gln	Ser	Leu	Arg	Cys	Asp	Leu	Ile	Arg	Tyr	Ile	Cys
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Ser	Pro	Asp	Lys	Asp	Ser	Ile	Met	Asn	Ile	Glu	Pro	Ala	Ile	Leu	Val
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Met	His	His	Ser	Met	Lys	Pro	His	Pro	Ala	Ile	Thr	Ala	Thr	Leu	Leu
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Asp	Phe	Met	Cys	Arg	Ile	Ile	Pro	Asn	Phe	Tyr	Pro	Pro	Leu	Glu	Gly
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His	Val	Arg	Gln	Gly	Val	Phe	Ser	Ser	Leu	Asn	His	Ile	Val	Glu	Lys

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Thr Lys Thr Pro Ser Ser Pro Val
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<212> DNA
<213> Homo sapiens

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Ser Lys Tyr Gly Ser Gln Phe Gln Gly Asn Ser Gln His Asp Ala Leu
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<211> 2505

<212> DNA

<213> Homo sapiens

<400> 3961

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<211> 306

<212> PRT

<213> Homo sapiens

<400> 3962

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			20					25					30		
Thr	Val	Met	Tyr	Ile	Cys	His	Pro	Glu	Ser	Lys	His	Glu	Ile	Leu	Ser

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Leu Leu Cys Ser His Pro Lys Tyr Arg Phe Arg Ala Ser Pro Val Asn		
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Asp Ile Phe Cys Gln Ser Leu Pro Gly Ser Pro Phe Lys Pro Leu Thr		
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Leu Arg Gln Leu Glu Gln Gln Glu Glu Ile Leu Arg Val Pro Phe Arg		
100	105	110
Arg Asn Lys Glu Glu Asp Leu Gln Ser Thr Lys Glu Glu Arg Phe Pro		
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Phe Leu Ser Gly Ser Tyr Cys Phe Arg Gly Gly Val Gly Trp Trp Lys		
165	170	175
Tyr Glu Phe Cys Tyr Gly Lys His Val His Gln Tyr His Glu Asp Lys		
180	185	190
Asp Ser Gly Lys Thr Ser Val Val Val Gly Thr Trp Asn Gln Glu Glu		
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225	230	235
Gly Asp Ile Cys Asp Ile Thr Asp Lys Pro Arg Gln Val Thr Val Lys		
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Leu Lys Cys Lys Glu Ser Asp Ser Pro His Ala Val Thr Val Tyr Met		
260	265	270
Leu Glu Pro His Ser Cys Gln Tyr Ile Leu Gly Val Glu Ser Pro Val		
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Ile Cys Lys Ile Leu Asp Thr Ala Asp Glu Asn Gly Leu Leu Ser Leu		
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Pro Asn		
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<210> 3963

<211> 1513

<212> DNA

<213> Homo sapiens

<400> 3963

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<211> 436

<212> PRT

<213> Homo sapiens

<400> 3964

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			20					25					30		
Gln	Phe	Ser	Asn	Ile	Ser	Phe	Ser	Arg	Asp	Ser	Pro	Glu	Glu	Asn	Val
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			100					105					110		
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Ile	Ser	Ser	Gly	Phe	Arg	Leu	Glu	Glu	Ser	Pro	Phe	Val	Pro	Tyr	Asp
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Asn	Leu	Pro	Ile	Asn	Thr	Val	Arg	Glu	Val	Asp	His	Leu	Arg	Asp	Arg
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<210> 3965

<211> 2850

<212> DNA

<213> Homo sapiens

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<211> 782

<212> PRT

<213> Homo sapiens

<400> 3966

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3128

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Asp Thr Pro Pro Pro Leu Glu Lys Ala Glu Ala Ala Leu Phe				480
	485		490	495
Lys Gly Lys Trp Asp Asp Glu Ala Arg Glu Met Ala Pro Pro Pro Ala				
	500		505	510
Pro Leu Leu Ala Pro Arg Pro Gly Glu Thr Arg Pro Gly Cys Arg Lys				
	515		520	525
Pro Gly Thr Val Ser Phe Ala Asp Val Ala Val Tyr Phe Ser Pro Glu				
	530		535	540
Glu Trp Gly Cys Leu Arg Pro Ala Gln Arg Ala Leu Tyr Arg Asp Val				
545		550		555
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	565		570	575
Lys Pro Ala Leu Ile Ser Trp Met Glu Gln Glu Ser Glu Ala Trp Ser				
	580		585	590
Pro Ala Ala Gln Asp Pro Glu Lys Gly Glu Arg Leu Gly Gly Ala Arg				
	595		600	605
Arg Gly Asp Val Pro Asn Arg Lys Glu Glu Glu Pro Glu Glu Val Pro				
	610		615	620
Arg Ala Lys Gly Pro Arg Lys Ala Pro Val Lys Glu Ser Pro Glu Val				
625		630		635
Leu Val Glu Arg Asn Pro Asp Pro Ala Ile Ser Val Ala Pro Ala Arg				
	645		650	655
Ala Gln Pro Pro Lys Asn Ala Ala Trp Asp Pro Thr Thr Gly Ala Gln				
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Pro Pro Ala Pro Ile Pro Ser Met Asp Ala Gln Ala Gly Gln Arg Arg				
	675		680	685
His Val Cys Thr Asp Cys Gly Arg Arg Phe Thr Tyr Pro Ser Leu Leu				
	690		695	700
Val Ser His Arg Arg Met His Ser Gly Glu Arg Pro Phe Pro Cys Pro				
705		710		715
Glu Cys Gly Met Arg Phe Lys Arg Lys Phe Ala Val Glu Ala His Gln				
	725		730	735
Trp Ile His Arg Ser Cys Ser Gly Gly Arg Arg Gly Arg Arg Pro Gly				
	740		745	750
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	755		760	765
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<210> 3967

<211> 892

<212> DNA

<213> Homo sapiens

<400> 3967

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<211> 151

<212> PRT

<213> Homo sapiens

<400> 3968

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			20					25					30		
Thr	Val	Val	Phe	Lys	Asp	Gly	Gln	Tyr	Trp	Ile	Arg	Gly	Arg	Thr	Ser
			35				40					45			
Val	Asp	Ile	Ile	Lys	Thr	Gly	Gly	Tyr	Lys	Val	Ser	Ala	Leu	Glu	Val
	50					55					60				
Glu	Trp	His	Leu	Leu	Ala	His	Pro	Ser	Ile	Thr	Asp	Val	Ala	Val	Ile
65					70					75				80	
Gly	Val	Pro	Asp	Met	Thr	Trp	Gly	Gln	Arg	Val	Thr	Ala	Val	Val	Thr
			85					90						95	
Leu	Arg	Glu	Gly	His	Ser	Leu	Ser	His	Arg	Glu	Leu	Lys	Glu	Trp	Ala
			100					105					110		
Arg	Asn	Val	Leu	Ala	Pro	Tyr	Ala	Val	Pro	Ser	Glu	Leu	Val	Leu	Val
			115				120						125		
Glu	Glu	Ile	Pro	Arg	Asn	Gln	Met	Gly	Lys	Ile	Asp	Lys	Lys	Ala	Leu
	130					135					140				
Ile	Arg	His	Phe	His	Pro	Ser									
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<210> 3969

<211> 915

<212> DNA

<213> Homo sapiens

<400> 3969

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<210> 3970

<211> 89

<212> PRT

<213> Homo sapiens

<400> 3970

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Gly Gly Ala Pro Ile Phe Leu Pro Ser Asp Gly Gln Ala Leu Val
20     25     30
Leu Gly Arg Gly Pro Leu Thr Gln Val Thr Asp Arg Lys Cys Ser Arg
35     40     45
Thr Gln Val Glu Leu Val Ala Asp Pro Glu Thr Arg Thr Val Ala Val
50     55     60
Lys Gln Val Ser Val Pro Leu Gln Gly Pro Ala Arg Pro Gly Asp Gly
65     70     75     80
Ile Trp Gly Gly Ile Ala Ser Arg Gln

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85

<210> 3971
 <211> 433
 <212> DNA
 <213> Homo sapiens

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 120
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 180
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 240
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 gttgtaagca atgagcttag acaggaaatg gggctctgggt cacatgggaa atggtaggac
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 433

<210> 3972
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 3972
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 20 25 30
 Trp Pro Cys Ser Ser Ser Thr Gln Ala His Pro Gly Pro Leu His Leu
 35 40 45
 Pro Phe Ser Leu Ser Gly Asp Leu Pro Pro Ser Phe Lys Ser Leu His
 50 55 60
 Lys Gly His His Pro Met Ser Glu Gly Phe Ser Asp Tyr Pro Phe Pro
 65 70 75 80
 Ser Arg Ala Leu Pro Ser Met Leu His Phe Phe Pro Arg Ala Leu Asn
 85 90 95
 Thr Thr Tyr Leu Ser Phe Ile Phe Ser Leu Ser Phe Phe Cys Leu Leu
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 Pro Leu Glu His His Gln Ser Arg
 115 120

<210> 3973
 <211> 984
 <212> DNA
 <213> Homo sapiens

<400> 3973

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 120
 tgctccacct acttgcagtc cagatattac agggcccctg agatcatact tggtttacca
 180
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 300
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 420
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 960
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 984

<210> 3974

<211> 328

<212> PRT

<213> Homo sapiens

<400> 3974

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Asp	Pro	Ser	Arg	Gln	Pro	Tyr	Arg	Val	Lys	Val	Ile	Asp	Phe	Gly	Ser
			20					25					30		
Ala	Ser	His	Val	Ser	Lys	Ala	Val	Cys	Ser	Thr	Tyr	Leu	Gln	Ser	Arg
		35					40					45			
Tyr	Tyr	Arg	Ala	Pro	Glu	Ile	Ile	Leu	Gly	Leu	Pro	Phe	Cys	Glu	Ala
	50					55					60				
Ile	Asp	Met	Trp	Ser	Leu	Gly	Cys	Val	Ile	Ala	Glu	Leu	Phe	Leu	Gly
65					70				75					80	
Trp	Pro	Leu	Tyr	Pro	Gly	Ala	Ser	Glu	Tyr	Asp	Gln	Ile	Arg	Tyr	Ile
			85					90					95		
Ser	Gln	Thr	Gln	Gly	Leu	Pro	Ala	Glu	Tyr	Leu	Leu	Ser	Ala	Gly	Thr

	100		105		110
Lys Thr Thr Arg Phe Phe Asn Arg Asp Thr Asp Ser Pro Tyr Pro Leu					
115			120		125
Trp Arg Leu Lys Thr Pro Asp Asp His Glu Ala Glu Thr Gly Ile Lys					
130			135		140
Ser Lys Glu Ala Arg Lys Tyr Ile Phe Asn Cys Leu Asp Asp Met Ala					
145			150		155
Gln Val Asn Met Thr Thr Asp Leu Glu Gly Ser Asp Met Leu Val Glu					
165			170		175
Lys Ala Asp Arg Arg Glu Phe Ile Asp Leu Leu Lys Lys Met Leu Thr					
180			185		190
Ile Asp Ala Asp Lys Arg Ile Thr Pro Ile Glu Thr Leu Asn His Pro					
195			200		205
Phe Val Thr Met Thr His Leu Leu Asp Phe Pro His Ser Thr His Val					
210			215		220
Lys Ser Cys Phe Gln Asn Met Glu Ile Cys Lys Arg Arg Val Asn Met					
225			230		235
Tyr Asp Thr Val Asn Gln Ser Lys Thr Pro Phe Ile Thr His Val Ala					
245			250		255
Pro Ser Thr Ser Thr Asn Leu Thr Met Thr Phe Asn Asn Gln Leu Thr					
260			265		270
Thr Val His Asn Gln Pro Ser Ala Ala Ser Met Ala Ala Ala Ala Gln					
275			280		285
Arg Ser Met Pro Leu Gln Thr Gly Thr Ala Gln Ile Cys Ala Arg Pro					
290			295		300
Asp Pro Phe Gln Gln Ala Leu Ile Val Cys Pro Pro Gly Leu Gln Ala					
305			310		315
Leu Gln Ala Ser Pro Phe Thr Arg					320
325					

<210> 3975
 <211> 593
 <212> DNA
 <213> Homo sapiens

<400> 3975
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 120
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 300
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 360
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 420
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 480
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593

<210> 3976

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3976

Met	Gly	Phe	Ser	Leu	Leu	Glu	Gly	Pro	Ala	Ser	Leu	Gln	Pro	Pro	His
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Arg	Glu	Ser	Leu	Pro	Leu	His	Ser	Leu	Pro	Arg	Asp	Gly	Ser	Trp	Gly
			20					25					30		
Leu	Lys	Gly	Ala	Trp	Ala	Ser	Ala	Ser	Leu	Gln	Ala	Ala	Ser	Asn	Ser
		35					40					45			
Gln	Ser	Gly	Phe	Gly	Cys	Pro	Gln	Cys	Ser	Pro	Glu	Ala	Ala	Ala	Pro
	50					55					60				
His	Pro	Thr	Ile	Leu	Leu	Arg	Arg	Leu	Gly	Ile	Ile	Gly	Leu	Pro	
65				70					75				80		
Trp	Lys	Gly	Ser	Ser	Arg	Arg	Gly	Leu	Arg	Glu	Pro	His	Arg	Cys	Pro
				85				90						95	
Leu	Ala	Cys	Gln	Thr											
				100											

<210> 3977

<211> 2668

<212> DNA

<213> Homo sapiens

<400> 3977

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360
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420
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480
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720

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1680
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1740
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<210> 3978

<211> 667

<212> PRT

<213> Homo sapiens

<400> 3978

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Phe	Thr	Trp	Asn	Lys	Arg	Ser	Gly	Leu	Gln	Val	Ser	Gln	Asp	Phe	Pro
			20					25					30		
Phe	Leu	His	Pro	Ser	Glu	Thr	Ser	Val	Leu	Asn	Arg	Leu	Cys	Arg	Leu
		35					40					45			
Gly	Thr	Asp	Tyr	Ile	Arg	Phe	Thr	Glu	Phe	Ile	Glu	Gln	Tyr	Thr	Gly
	50					55					60				
His	Val	Gln	Gln	Gln	Asp	His	His	Pro	Ser	Gln	Gln	Gly	Gln	Gly	Gly
65					70					75					80
Leu	His	Gly	Ile	Tyr	Leu	Arg	Ala	Phe	Cys	Thr	Gly	Leu	Asp	Ser	Val
			85						90					95	
Leu	Gln	Pro	Tyr	Arg	Gln	Ala	Leu	Leu	Asp	Leu	Glu	Gln	Glu	Phe	Leu
			100						105					110	
Gly	Asp	Pro	His	Leu	Ser	Ile	Ser	His	Val	Asn	Tyr	Phe	Leu	Asp	Gln
		115					120						125		
Phe	Gln	Leu	Leu	Phe	Pro	Ser	Val	Met	Val	Val	Val	Glu	Gln	Ile	Lys
		130					135						140		
Ser	Gln	Lys	Ile	His	Gly	Cys	Gln	Ile	Leu	Glu	Thr	Val	Tyr	Lys	His
145					150					155					160
Ser	Cys	Gly	Gly	Leu	Pro	Pro	Val	Arg	Ser	Ala	Leu	Glu	Lys	Ile	Leu
			165						170					175	
Ala	Val	Cys	His	Gly	Val	Met	Tyr	Lys	Gln	Leu	Ser	Ala	Trp	Met	Leu
			180						185					190	
His	Gly	Leu	Leu	Leu	Asp	Gln	His	Glu	Glu	Phe	Phe	Ile	Lys	Gln	Gly
		195					200						205		
Pro	Ser	Ser	Gly	Asn	Val	Ser	Ala	Gln	Pro	Glu	Glu	Asp	Glu	Glu	Asp
		210				215						220			
Leu	Gly	Ile	Gly	Gly	Leu	Thr	Gly	Lys	Gln	Leu	Arg	Glu	Leu	Gln	Asp
225					230					235					240
Leu	Arg	Leu	Ile	Glu	Glu	Glu	Asn	Met	Leu	Ala	Pro	Ser	Leu	Lys	Gln
			245						250					255	
Phe	Ser	Leu	Arg	Val	Glu	Ile	Leu	Pro	Ser	Tyr	Ile	Pro	Val	Arg	Val
			260					265						270	
Ala	Glu	Lys	Ile	Leu	Phe	Val	Gly	Glu	Ser	Val	Gln	Met	Phe	Glu	Asn

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Asp Thr Phe Ala Ala Glu Leu His Arg Leu Lys Gln Gln Pro Leu Phe
  305              310              315              320
Ser Leu Val Asp Phe Glu Gln Val Val Asp Arg Ile Arg Ser Thr Val
      325              330              335
Ala Glu His Leu Trp Lys Leu Met Val Glu Glu Ser Asp Leu Leu Gly
      340              345              350
Gln Leu Lys Ile Ile Lys Asp Phe Tyr Leu Leu Gly Arg Gly Glu Leu
      355              360              365
Phe Gln Ala Phe Ile Asp Thr Ala Gln His Met Leu Lys Thr Pro Pro
      370              375              380
Thr Ala Val Thr Glu His Asp Val Asn Val Ala Phe Gln Gln Ser Ala
  385              390              395              400
His Lys Val Leu Leu Asp Asp Asp Asn Leu Leu Pro Leu Leu His Leu
      405              410              415
Thr Ile Glu Tyr His Xaa Glu Arg Ser Thr Lys Met Leu Leu Arg Xaa
      420              425              430
Arg Glu Gly Pro Ser Arg Glu Thr Ser Pro Arg Glu Ala Pro Ala Ser
      435              440              445
Gly Trp Ala Ala Leu Gly Leu Ser Tyr Lys Val Gln Trp Pro Leu His
      450              455              460
Ile Leu Phe Thr Pro Ala Val Leu Glu Lys Tyr Asn Val Val Phe Lys
  465              470              475              480
Tyr Leu Leu Ser Val Arg Arg Val Gln Ala Glu Leu Gln His Cys Trp
      485              490              495
Ala Leu Gln Met Gln Arg Lys His Leu Lys Ser Asn Gln Thr Asp Ala
      500              505              510
Ile Lys Trp Arg Leu Arg Asn His Met Ala Phe Leu Val Asp Asn Leu
      515              520              525
Gln Tyr Tyr Leu Gln Val Asp Val Leu Glu Ser Gln Phe Ser Gln Leu
      530              535              540
Leu His Gln Ile Asn Ser Thr Arg Asp Phe Glu Ser Ile Arg Leu Ala
  545              550              555              560
His Asp His Phe Leu Ser Asn Leu Leu Ala Gln Ser Phe Ile Leu Leu
      565              570              575
Lys Pro Val Phe His Cys Leu Asn Glu Ile Leu Asp Leu Cys His Ser
      580              585              590
Phe Cys Ser Leu Val Ser Gln Asn Leu Gly Pro Leu Asp Glu Arg Gly
      595              600              605
Ala Ala Gln Leu Ser Ile Leu Val Lys Gly Phe Ser Arg Gln Ser Ser
      610              615              620
Leu Leu Phe Lys Ile Leu Ser Ser Val Arg Asn His Gln Ile Asn Ser
  625              630              635              640
Asp Leu Ala Gln Leu Leu Leu Arg Leu Asp Tyr Asn Lys Tyr Tyr Thr
      645              650              655
Gln Ala Gly Gly Thr Leu Gly Ser Phe Gly Met
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<210> 3979

<211> 2746

<212> DNA

<213> Homo sapiens

<400> 3979

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240
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<213> Homo sapiens

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<210> 3984

<211> 484

<212> PRT

<213> Homo sapiens

<400> 3984

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Leu Lys Glu Val Gln Ala Asp Lys Glu Gln Ser Glu Ala Glu Leu Gln		
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Val Ala Gln Gln Glu Asn His His Leu Asn Leu Asp Leu Lys Glu Ala		
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Lys Ser Trp Gln Glu Glu Gln Ser Ala Gln Ala Gln Arg Leu Lys Asp		
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Lys Val Ala Gln Met Lys Asp Thr Leu Gly Gln Ala Gln Gln Arg Val		
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Ala Glu Leu Glu Pro Leu Lys Glu Gln Leu Arg Gly Ala Gln Glu Leu		
130	135	140
Ala Ala Ser Ser Gln Gln Lys Ala Thr Leu Leu Gly Glu Glu Leu Ala		
145	150	155
Ser Ala Ala Ala Ala Arg Asp Arg Thr Ile Ala Glu Leu His Arg Ser		
165	170	175
Arg Leu Glu Val Ala Glu Val Asn Gly Arg Leu Ala Glu Leu Gly Leu		
180	185	190
His Leu Lys Glu Glu Lys Cys Gln Trp Ser Lys Glu Arg Ala Gly Leu		
195	200	205
Leu Gln Ser Val Glu Ala Glu Lys Asp Lys Ile Leu Lys Leu Ser Ala		
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Glu Ile Leu Arg Leu Glu Lys Ala Val Gln Glu Glu Lys Thr Gln Asn		
225	230	235
Gln Val Phe Lys Thr Glu Leu Ala Arg Glu Lys Asp Ser Ser Leu Val		
245	250	255
Gln Leu Ser Glu Ser Lys Arg Glu Leu Thr Glu Leu Arg Ser Ala Leu		
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Arg Val Leu Gln Lys Glu Lys Glu Gln Leu Gln Glu Lys Gln Glu		
275	280	285
Leu Leu Glu Tyr Met Arg Lys Leu Glu Ala Arg Leu Glu Lys Val Ala		
290	295	300
Asp Glu Lys Trp Asn Glu Asp Ala Thr Thr Glu Asp Glu Glu Ala Ala		
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Val Gly Leu Ser Cys Pro Ala Ala Leu Thr Asp Ser Glu Asp Glu Ser		
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Pro Glu Asp Met Arg Leu Pro Pro Tyr Gly Leu Cys Glu Arg Gly Asp		
340	345	350
Pro Gly Ser Ser Pro Ala Gly Pro Arg Glu Ala Ser Pro Leu Val Val		
355	360	365
Ile Ser Gln Pro Ala Pro Ile Ser Pro His Leu Ser Gly Pro Ala Glu		
370	375	380
Asp Ser Ser Ser Asp Ser Glu Ala Glu Asp Glu Lys Ser Val Leu Met		
385	390	395
Ala Ala Val Gln Ser Gly Gly Glu Glu Ala Asn Leu Leu Leu Pro Glu		
405	410	415
Leu Gly Ser Ala Phe Tyr Asp Met Ala Ser Gly Phe Thr Val Gly Thr		
420	425	430
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435	440	445
Cys Pro Ile Cys Lys Glu Arg Phe Pro Ala Glu Ser Asp Lys Asp Ala		
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Phe Thr Phe Glu

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475

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<211> 523
<212> DNA
<213> Homo sapiens

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420
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<212> PRT
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35 40 45
Ser Ser Cys Phe Cys Cys Cys Cys Cys Cys Cys Cys Cys Cys Cys Cys
50 55 60
Cys Cys Trp Met Arg Leu Arg Ser Glu Arg Leu Ser Ser Ala Leu Ala
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<210> 3988

<211> 1817

<212> PRT

<213> Homo sapiens

<400> 3988

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Leu	Gln	Glu	Thr	Gln	Gln	Leu	Leu	Gln	Met	Gln	Gln	Lys	Tyr	Leu	Glu
			35					40					45		
Glu	Gln	Ile	Gly	Ala	His	Arg	Lys	Ser	Lys	Lys	Ala	Leu	Ser	Ala	Lys

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Gln Arg Thr Ala Lys	Lys Ala Gly Arg Glu Phe	Pro Glu Glu Asp Ala		
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Glu Gln Leu Lys His	Val Thr Glu Gln Gln Ser Met	Val Gln Lys Gln		
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Leu Glu Gln Ile Arg	Lys Gln Gln Lys Glu His Ala	Glu Leu Ile Glu		
	100	105	110	
Asp Tyr Arg Ile Lys	Gln Gln Gln Gln Cys Ala Met	Ala Pro Pro Thr		
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Met Met Pro Ser Val	Gln Pro Gln Pro Pro Leu Ile	Pro Gly Ala Thr		
	130	135	140	
Pro Pro Thr Met Ser	Gln Pro Thr Phe Pro Met	Val Pro Gln Gln Leu		
	145	150	155	160
Gln His Gln Gln His	Thr Thr Val Ile Ser Gly	His Thr Ser Pro Val		
	165	170	175	
Arg Met Pro Ser Leu	Pro Gly Trp Gln Pro Asn Ser	Ala Pro Ala His		
	180	185	190	
Leu Pro Leu Asn Pro	Pro Arg Ile Gln Pro Pro Ile	Ala Gln Leu Pro		
	195	200	205	
Ile Lys Thr Cys Thr	Pro Ala Pro Gly Thr Val Ser	Asn Ala Asn Pro		
	210	215	220	
Gln Ser Gly Pro Pro	Pro Arg Val Glu Phe Asp	Asp Asn Asn Pro Phe		
	225	230	235	240
Ser Glu Ser Phe Gln	Glu Arg Glu Arg Lys Glu Arg	Leu Arg Glu Gln		
	245	250	255	
Gln Glu Arg Gln Arg	Ile Gln Leu Met Gln Glu Val	Asp Arg Gln Arg		
	260	265	270	
Ala Leu Gln Gln Arg	Met Glu Met Glu Gln His	Gly Met Val Gly Ser		
	275	280	285	
Glu Ile Ser Ser Ser	Arg Thr Ser Val Ser Gln Ile	Pro Phe Tyr Ser		
	290	295	300	
Ser Asp Leu Pro Cys	Asp Phe Met Gln Pro Leu Gly	Pro Leu Gln Gln		
	305	310	315	320
Ser Pro Gln His Gln	Gln Gln Met Gly Gln Val	Leu Gln Gln Gln Asn		
	325	330	335	
Ile Gln Gln Gly Ser	Ile Asn Ser Pro Ser Thr	Gln Thr Phe Met Gln		
	340	345	350	
Thr Asn Glu Arg Arg	Gln Val Gly Pro Pro Ser	Phe Val Pro Asp Ser		
	355	360	365	
Pro Ser Ile Pro Val	Gly Ser Pro Asn Phe Ser	Ser Val Lys Gln Gly		
	370	375	380	
His Gly Asn Leu Ser	Gly Thr Ser Phe Gln Gln Ser	Pro Val Arg Pro		
	385	390	395	400
Ser Phe Thr Pro Ala	Leu Pro Ala Ala Pro Pro	Val Ala Asn Ser Ser		
	405	410	415	
Leu Pro Cys Gly Gln	Asp Ser Thr Ile Thr His	Gly His Ser Tyr Pro		
	420	425	430	
Gly Ser Thr Gln Ser	Leu Ile Gln Leu Tyr Ser	Asp Ile Ile Pro Glu		
	435	440	445	
Glu Lys Lys Lys Lys	Arg Thr Arg Lys Lys Lys	Arg Asp Asp Asp		
	450	455	460	
Ala Glu Ser Thr Lys	Ala Pro Ser Thr Pro His	Ser Asp Ile Thr Ala		
	465	470	475	480
Pro Pro Thr Pro Gly	Ile Ser Glu Thr Thr Ser	Thr Pro Ala Val Ser		

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 Val Gly Pro Ser Thr Pro Asn Met Ala Ala Gly Gln Leu Cys Thr Glu
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 Gln Gln Thr Tyr Ala Asn Ser Glu Val Asp Lys Leu Ser Met Glu Thr
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 Cys Pro Gly Gln Glu Glu Pro Lys Leu Glu Glu Gln Asn Gly Ser Lys
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 850 855 860
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 885 890 895
 His Cys Gly Asp Arg Asp Thr Pro Asp Ser Phe Val Pro Ser Ser Ser
 900 905 910
 Pro Glu Ser Val Val Gly Val Glu Val Ser Arg Tyr Pro Asp Leu Ser

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Leu Val Lys Glu Glu Pro	Pro Glu Pro Val Pro	Ser Pro Ile Ile Pro
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Ile Leu Pro Ser Thr Ala	Gly Lys Ser Ser Glu	Ser Arg Arg Asn Asp
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Ile Lys Thr Glu Pro Gly	Thr Leu Tyr Phe Ala	Ser Pro Phe Gly Pro
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Ser Pro Asn Gly Pro Arg	Ser Gly Leu Ile Ser	Val Ala Ile Thr Leu
980	985	990
His Pro Thr Ala Ala Glu	Asn Ile Ser Ser Val	Val Ala Ala Phe Ser
995	1000	1005
Asp Leu Leu His Val Arg	Ile Pro Asn Ser Tyr	Glu Val Ser Ser Ala
1010	1015	1020
Pro Asp Val Pro Ser Met	Gly Leu Val Ser Ser	His Arg Ile Asn Pro
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Gly Leu Glu Tyr Arg Gln	His Leu Leu Leu Arg	Gly Pro Pro Pro Gly
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Ser Ala Asn Pro Pro Arg	Leu Val Ser Ser Tyr	Arg Leu Lys Gln Pro
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Asn Val Pro Phe Pro Pro	Thr Ser Asn Gly Leu	Ser Gly Tyr Lys Asp
1075	1080	1085
Ser Ser His Gly Ile Ala	Glu Ser Ala Ala Leu	Arg Pro Gln Trp Cys
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Cys His Cys Lys Val Val	Ile Leu Gly Ser Gly	Val Arg Lys Ser Phe
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Lys Asp Leu Thr Leu Leu	Asn Lys Asp Ser Arg	Glu Ser Thr Lys Arg
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Gln Tyr Ser Asn Asn Ile	Ser Thr Leu Asp Val	His Cys Leu Pro Gln
1185	1190	1195
Leu Pro Glu Lys Ala Ser	Pro Pro Ala Ser Pro	Pro Ile Ala Phe Pro
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Pro Ala Phe Glu Ala Ala	Gln Val Glu Ala Lys	Pro Asp Glu Leu Lys
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 Cys Val Ala Glu Val Val Thr Phe Glu Arg Gly His Lys Ile Ile Ile
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		Asp	Gln	His	Lys
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				His	Cys
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<210> 3989
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 <212> DNA
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<211> 955

<212> PRT

<213> Homo sapiens

<400> 3990

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	50					55					60				
Pro	Arg	Val	Tyr	Gln	Asn	Arg	Asp	Phe	Arg	Gly	His	Asn	Arg	Gly	Tyr
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Arg	Ser	Ser	Ser	Asn	His	Ser	Arg	Val	Glu	Ser	Ser	Lys	Arg	Lys	Ser
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Ala	Lys	Glu	Lys	Lys	Ser	Ser	Ser	Lys	Asp	Ser	Arg	Pro	Ser	Gln	Ala
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Ser	Val	Val	Val	Arg	Arg	Arg	Ser	Pro	Arg	Pro	Ser	Pro	Val	Pro	Lys
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Pro	Ser	Pro	Pro	Leu	Ser	Ser	Thr	Ser	Gln	Met	Gly	Ser	Thr	Leu	Pro
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Pro	Pro	Ser	Thr	Gly	Ser	Thr	Tyr	Gly	Ser	Ser	Gln	Lys	Glu	Glu	Ser
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Ala	Ala	Ser	Gly	Gly	Ala	Ala	Tyr	Thr	Lys	Arg	Tyr	Leu	Glu	Glu	Gln
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3163

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Thr Phe Gln Phe Arg Ala Arg Gly Arg Gly Trp Gly Arg Gly Asn Tyr
      835          840          845
Ser Gly Asn Asn Asn Asn Asn Ser Asn Asn Asp Phe Gln Lys Arg Asn
      850          855          860
Arg Glu Glu Glu Trp Asp Pro Glu Tyr Thr Pro Lys Ser Lys Lys Tyr
865          870          875          880
Tyr Leu His Asp Asp Arg Glu Gly Glu Gly Ser Asp Lys Trp Val Ser
      885          890          895
Arg Gly Arg Gly Arg Gly Ala Phe Pro Arg Gly Arg Gly Arg Phe Met
      900          905          910
Phe Arg Lys Ser Ser Thr Ser Pro Lys Trp Ala His Asp Lys Phe Ser
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 <212> DNA
 <213> Homo sapiens

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<210> 3992
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<400> 3992
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65              70              75              80
Val Val Asn Ser Gln Tyr Gly Thr Gln Pro Gln Gln Tyr Pro Pro Ile
      85              90              95
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<210> 3993

<211> 394

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<213> Homo sapiens

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Thr Glu Gly Ala Asn Ile Asn Lys Pro Asp Cys Glu Gly Glu Thr Pro
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<211> 715

<212> DNA

<213> Homo sapiens

<400> 3995

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<213> Homo sapiens

<400> 3996

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			20				25					30			
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Tyr	Thr	Phe	Gly	Leu	Ala	Gly	Gly	Gly	Tyr	Glu	Asn	Pro	Val	Gly	Gln
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	195		200		205										
His	Glu	Ser	Gln	Glu	Gln	Thr	Leu	Met	Glu	Glu	Ala	Pro	Pro	Arg	Ala
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<210> 3997

<211> 7484

<212> DNA

<213> Homo sapiens

<400> 3997

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His Asp Arg Phe Glu Glu Ser Ala Lys Ala Tyr His Glu Leu Leu Glu
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Leu Lys His Pro Gly Leu Ile Leu Lys Tyr Ser Thr Tyr Lys Asn Leu
      85           90           95
Ala Gln Leu Ala Ala Gln Arg Glu Asp Leu Glu Thr Ala Met Glu Phe
      100           105           110
Tyr Leu Glu Ala Val Met Leu Asp Ser Thr Asp Val Asn Leu Trp Tyr
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Cys Leu Tyr Phe Ile Cys Lys Ala Leu Glu Lys Asp Cys Arg Tyr Ser
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Glu	Ser	Thr	Glu	Gly	Phe	Arg	Ala	Ala	Glu	Gln	Gly	Val	Gln	Lys	Pro
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Ala	Ala	Glu	Thr	Pro	Ala	Ser	Ala	Cys	Ile	Pro	Gly	Lys	Pro	Ser	Ala
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Ser	Thr	Pro	Thr	Leu	Trp	Asp	Gly	Lys	Lys	Arg	Gly	Asp	Leu	Pro	Gly
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Ser	Arg	Phe	Pro	Gln	His	Tyr	Lys	Ser	Leu	Tyr	Arg	Leu	Ala	Phe	Leu
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Tyr	Thr	Tyr	Ser	Lys	Thr	His	Arg	Asn	Leu	Gln	Trp	Ala	Arg	Asp	Val
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Gln	Gly	Leu	Phe	Cys	Glu	Arg	Asn	Lys	Thr	Asn	Phe	Phe	Asn	Gly	Ile
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Trp	Arg	Ile	Pro	Val	Asp	Glu	Ile	Asp	Arg	Pro	Gly	Ser	Phe	Ala	Trp
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His	Met	Asn	Arg	Ser	Ile	Val	Leu	Leu	Leu	Lys	Val	Leu	Ala	Gln	Leu
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Lys Thr Leu Leu Leu Asp Ala Tyr Arg Val Trp Gln Gln Gly Gln Lys		
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Gly Val Ala Tyr Asp Leu Gly Arg Val Glu Arg Ile Met Ser Glu Thr		
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Tyr Met Leu Ile Lys Gln Val Asp Glu Glu Ala Ala Leu Glu Gln Ala		
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Glu Leu Ala Arg Val Ala Glu Gly Thr Ser Phe Pro Pro Gln Glu Pro		
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Arg His Ser Pro Gln Val Lys Met Ala Pro Thr Ser Ser Pro Ala Glu		
2035	2040	2045
Pro His Cys Trp Pro Ala Glu Ala Ala Leu Gly Thr Gly Ala Glu Pro		
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Thr Cys Ser Gln Glu Gly Lys Leu Arg Pro Glu Pro Arg Arg Asp Gly		
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Thr Ala Ala Ser Ser Lys Ala Pro Ser Ser Gly Ser Ala Gln Pro Pro		
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Pro Pro Glu Ile Thr Val Thr Pro Pro Thr Pro Thr Leu Leu Ser Pro		

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Leu Ser Ala Gln	Ser Ala Ala Asn	Val Arg Lys Glu	Ser Leu Cys Gln			
	2180		2185		2190	
Pro Ala Leu Glu	Val Leu Glu Thr	Ser Ser Gln Glu	Ser Ser Leu Glu			
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<210> 3999

<211> 2546

<212> DNA

<213> Homo sapiens

<400> 3999

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<211> 606

<212> PRT

<213> Homo sapiens

<400> 4000

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 35           40           45
Glu Cys Pro Asp Glu Ser Phe Ile Gln Pro Ile Cys Glu Asn Ala Thr
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Phe Gln Arg Tyr Gln Gly Lys Ala Asp Ala Pro Val Ala Leu Val Val
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His Met Ala Pro Ala Ser Val Leu Val Asp Ser Arg Tyr Gln Gln Trp
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Met Glu Arg Phe Gly Pro Asp Thr Gln His Leu Val Leu Asn Glu Asn
 100          105          110
Cys Ala Ser Val His Asn Leu Arg Ser His Lys Ile Gln Thr Gln Leu
 115          120          125
Asn Leu Ile His Pro Asp Ile Phe Pro Leu Leu Thr Ser Phe Arg Cys
 130          135          140
Lys Lys Glu Gly Pro Thr Leu Ser Val Pro Met Val Gln Gly Glu Cys
 145          150          155          160
Leu Leu Lys Tyr Gln Leu Arg Pro Arg Arg Glu Trp Gln Arg Asp Ala
 165          170          175
Ile Ile Thr Cys Asn Pro Glu Glu Phe Ile Val Glu Ala Leu Gln Leu
 180          185          190
Pro Asn Phe Gln Gln Ser Val Gln Glu Tyr Arg Arg Ser Ala Gln Asp
 195          200          205
Gly Pro Ala Pro Ala Glu Lys Arg Ser Gln Tyr Pro Glu Ile Ile Phe
 210          215          220
Leu Gly Thr Gly Ser Ala Ile Pro Met Lys Ile Arg Asn Val Ser Ala
 225          230          235          240
Thr Leu Val Asn Ile Ser Pro Asp Thr Ser Leu Leu Leu Asp Cys Gly
 245          250          255
Glu Gly Thr Phe Gly Gln Leu Cys Arg His Tyr Gly Asp Gln Val Asp
 260          265          270
Arg Val Leu Gly Thr Leu Ala Ala Val Phe Val Ser His Leu His Ala
 275          280          285
Asp His His Thr Gly Leu Pro Ser Ile Leu Leu Gln Arg Glu Arg Ala
 290          295          300
Leu Ala Ser Leu Gly Lys Pro Leu His Pro Leu Leu Val Val Ala Pro
 305          310          315          320
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 325          330          335
Val Leu His His Ile Ser Met Ile Pro Ala Lys Cys Leu Gln Glu Gly
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Ala Glu Ile Ser Ser Pro Ala Val Glu Arg Leu Ile Ser Ser Leu Leu
 355          360          365
Arg Thr Cys Asp Leu Glu Glu Phe Gln Thr Cys Leu Val Arg His Cys
 370          375          380
Lys His Ala Phe Gly Cys Ala Leu Val His Thr Ser Gly Trp Lys Val
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<210> 4001
<211> 1251
<212> DNA
<213> Homo sapiens
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<210> 4002

<211> 417

<212> PRT

<213> Homo sapiens

<400> 4002

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Leu	Ser	Asp	Ser	Leu	Gly	Val	Ser	Val	Met	Ala	Thr	Asp	Gln	Asp	Ser
		35				40						45			
Tyr	Ser	Thr	Ser	Ser	Thr	Glu	Glu	Leu	Glu	Gln	Phe	Ser	Ser	Pro	
	50					55				60					
Ser	Val	Lys	Lys	Lys	Pro	Ser	Met	Ile	Leu	Gly	Lys	Ala	Arg	His	Arg
65					70					75				80	
Leu	Ser	Phe	Ala	Ser	Phe	Ser	Ser	Met	Phe	His	Ala	Phe	Leu	Ser	Asn
				85					90					95	
Asn	Arg	Lys	Leu	Tyr	Lys	Lys	Val	Val	Glu	Leu	Ala	Gln	Asp	Lys	Gly
			100					105					110		
Ser	Tyr	Phe	Gly	Ser	Leu	Val	Gln	Asp	Tyr	Lys	Val	Tyr	Ser	Leu	Glu
		115					120					125			
Met	Met	Ala	Arg	Gln	Thr	Ser	Ser	Thr	Glu	Met	Leu	Gln	Glu	Ile	Arg
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Thr	Met	Met	Thr	Gln	Leu	Lys	Ser	Tyr	Leu	Leu	Gln	Ser	Thr	Glu	Leu
145					150					155				160	
Lys	Ala	Leu	Val	Asp	Pro	Ala	Leu	His	Ser	Glu	Glu	Glu	Leu	Glu	Ala
			165					170						175	
Ile	Val	Glu	Ser	Ala	Leu	Tyr	Lys	Cys	Val	Leu	Lys	Pro	Leu	Lys	Glu
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Ala	Ile	Asn	Ser	Cys	Leu	His	Gln	Ile	His	Ser	Lys	Asp	Gly	Ser	Leu
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Gln	Gln	Leu	Lys	Glu	Asn	Gln	Leu	Val	Ile	Leu	Ala	Thr	Thr	Thr	Thr
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 <212> PRT
 <213> Homo sapiens

<400> 4004

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      35           40           45
Ala Lys Pro Pro Val Ser Phe Phe Ser Leu Arg Ser Pro Val Leu Asp
      50           55           60
Leu Phe Gln Gly Gln Leu Asp Tyr Ala Glu Tyr Val Arg Arg Asp Ser
65           70           75           80
Glu Val Val Leu Leu Phe Phe Tyr Ala Pro Trp Cys Gly Gln Ser Ile
      85           90           95
Ala Ala Arg Ala Glu Ile Glu Gln Ala Ala Ser Arg Leu Ser Asp Gln
      100          105          110
Val Leu Phe Val Ala Ile Asn Cys Trp Trp Asn Gln Gly Lys Cys Arg
      115          120          125
Lys Gln Lys His Phe Phe Tyr Phe Pro Val Ile Tyr Leu Tyr His Arg
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Ser Phe Gly Pro Ile Glu Tyr Lys Gly Pro His Glu Cys Cys Leu His
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<210> 4005
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 <212> DNA
 <213> Homo sapiens

<400> 4005

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666

<210> 4006
<211> 222
<212> PRT
<213> Homo sapiens

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35 40 45
Pro Lys Met Thr Arg Ser Lys Leu Lys Glu Val Val Glu Lys Gly Met
50 55 60
Val Ile Pro Thr Trp Asn Ile Ser Pro Ile Lys Lys Ala Asn Glu Ile
65 70 75 80
Lys Pro Pro Gln Phe Val Asp Ile His Leu Glu Glu Asp Asp Ser Ser
85 90 95
Asp Glu Glu Tyr Gln Pro Asp Asp Glu Glu Glu Asp Glu Thr Ala Glu
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Glu Ser Leu Leu Glu Ser Asp Val Glu Ser Thr Ala Ser Ser Pro Arg
115 120 125
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Asp Glu Glu Ser Gly Ile Leu Ser Glu Ala Glu Lys Val Thr Thr Pro
145 150 155 160
Ala Ile Arg His Ile Ser Ala Glu Val Val Pro Met Gly Pro Pro Pro
165 170 175
Pro Pro Lys Pro Lys Gln Thr Arg Asp Ser Thr Phe Met Glu Lys Leu
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<210> 4007
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<212> DNA
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<210> 4008
 <211> 290
 <212> PRT
 <213> Homo sapiens

<400> 4008
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 35 40 45
 Glu Lys Asp Thr Gly Asp Leu Lys Asp Ser Ser Leu Leu Lys Thr Lys
 50 55 60
 Arg Lys His Lys Lys Lys His Lys Glu Arg His Lys Met Gly Glu Glu
 65 70 75 80
 Val Ile Pro Leu Arg Val Leu Ser Lys Ser Glu Trp Met Asp Leu Lys
 85 90 95
 Lys Glu Tyr Leu Ala Leu Gln Lys Ala Ser Met Ala Ser Leu Lys Lys
 100 105 110
 Thr Ile Ser Gln Ile Lys Ser Glu Ser Glu Met Glu Thr Asp Ser Gly
 115 120 125
 Val Pro Gln Asn Thr Gly Met Lys Asn Glu Lys Thr Ala Asn Arg Glu
 130 135 140
 Glu Cys Arg Thr Gln Glu Lys Val Asn Ala Thr Gly Pro Gln Phe Val
 145 150 155 160
 Ser Gly Val Ile Val Lys Ile Ile Ser Thr Glu Pro Leu Pro Gly Arg
 165 170 175
 Lys Gln Val Arg Asp Thr Leu Ala Ala Ile Ser Glu Val Leu Tyr Val
 180 185 190
 Asp Leu Leu Glu Gly Asp Thr Glu Cys His Ala Arg Phe Lys Thr Pro
 195 200 205
 Glu Asp Ala Gln Ala Val Ile Asn Ala Tyr Thr Glu Ile Asn Lys Lys
 210 215 220
 His Cys Trp Lys Leu Glu Ile Leu Ser Gly Asp His Glu Gln Arg Tyr
 225 230 235 240
 Trp Gln Lys Ile Leu Val Asp Arg Gln Ala Lys Leu Asn Gln Pro Arg
 245 250 255
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 Tyr Asp
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<210> 4010
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 <212> PRT
 <213> Homo sapiens

<400> 4010
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 35 40 45
 Pro Thr Thr Ala Ala Phe Ile Cys Asp Ser Leu Val Asn Glu Lys Thr
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 Ile Gly Ser Pro Pro Asn Glu Phe Tyr Cys Ser Glu Asn Thr Ser Val
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300					
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360					
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420					
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<210> 4012

<211> 419

<212> PRT

<213> Homo sapiens

<400> 4012

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Ser	Arg	Ser	Arg	Ala	Arg	Ala	Gly	Glu	Leu	Trp	Leu	Pro	His	Gly	Thr
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Val	Ala	Thr	Pro	Val	Phe	Met	Pro	Val	Gly	Thr	Gln	Ala	Thr	Met	Lys
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Gly	Ile	Thr	Thr	Glu	Gln	Leu	Asp	Ala	Leu	Gly	Cys	Arg	Ile	Cys	Leu
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Gly	Asn	Thr	Tyr	His	Leu	Gly	Leu	Arg	Pro	Gly	Pro	Glu	Leu	Ile	Gln
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Lys	Ala	Asn	Gly	Leu	His	Gly	Phe	Met	Asn	Trp	Pro	His	Asn	Leu	Leu
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Thr	Leu	Cys	Gly	Gly	Val	Ser	Leu	Asp	Ser	Gly	Gly	Phe	Gln	Met	Val
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Ser	Leu	Val	Ser	Leu	Ser	Glu	Val	Thr	Glu	Glu	Gly	Val	Arg	Phe	Arg
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<212> DNA
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420
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660

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<211> 473

<212> PRT

<213> Homo sapiens

<400> 4014

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			20					25					30		
Thr	Pro	Ala	Leu	Gln	Pro	Leu	Ser	Arg	Ala	Ser	Pro	Ile	Pro	Gly	Thr
		35					40					45			
Pro	Asp	Arg	Leu	Pro	Cys	Gln	Leu	Leu	Gln	Gln	Ala	Gln	Ala	Ala	
	50					55				60					
Ile	Pro	Arg	Ser	Thr	Ser	Phe	Asp	Arg	Lys	Leu	Pro	Asp	Gly	Thr	Arg
65					70				75					80	
Ser	Ser	Pro	Ser	Asn	Gln	Ser	Ser	Ser	Ser	Asp	Pro	Gly	Pro	Gly	Gly
				85					90					95	
Ser	Gly	Pro	Trp	Arg	Pro	Gln	Val	Gly	Tyr	Asp	Gly	Cys	Gln	Ser	Pro
			100					105					110		
Leu	Leu	Leu	Glu	His	Gln	Gly	Ser	Gly	Pro	Leu	Glu	Cys	Asp	Gly	Ala
		115					120					125			
Arg	Glu	Arg	Glu	Asp	Thr	Met	Glu	Ala	Ser	Arg	His	Pro	Glu	Thr	Lys
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Trp	His	Gly	Pro	Pro	Ser	Lys	Val	Leu	Gly	Ser	Tyr	Lys	Glu	Arg	Ala
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Leu	Gln	Lys	Asp	Gly	Ser	Cys	Lys	Asp	Ser	Pro	Asn	Lys	Leu	Ser	His

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Ile	Gly	Asp	Lys	Ser	Cys	Ser	Ser	His	Ser	Ser	Ser	Asn	Thr	Leu	Ser
			180					185					190		
Ser	Asn	Thr	Ser	Ser	Asn	Ser	Asp	Asp	Lys	His	Phe	Gly	Ser	Gly	Asp
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Leu	Met	Asp	Pro	Glu	Leu	Leu	Gly	Leu	Thr	Tyr	Ile	Lys	Gly	Ala	Ser
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Thr	Asp	Ser	Gly	Ile	Asp	Thr	Ala	Pro	Cys	Met	Pro	Ala	Thr	Ile	Leu
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Glu	Gln	Trp	Ala	Asp	Ala	Ala	Asp	Val	Ser	Gly	Pro	Asp	Asp	Glu	Pro
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Ala	Lys	Leu	Tyr	Ser	Val	His	Gly	Tyr	Ala	Ser	Thr	Ile	Ser	Ala	Gly
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Ser	Ser	Gly	Ser	His	His	Ser	Gly	Ser	Pro	Ser	Ala	His	Cys	Ser	Lys
305					310					315					320
Ser	Ser	Gly	Ser	Leu	Asp	Ser	Ser	Lys	Val	Tyr	Ile	Val	Ser	His	Ser
			325					330						335	
Ser	Gly	Gln	Gln	Val	Pro	Gly	Ser	Met	Ser	Lys	Pro	Tyr	His	Arg	Gln
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Gly	Ala	Val	Asn	Lys	Tyr	Val	Ile	Gly	Trp	Lys	Lys	Ser	Glu	Gly	Ser
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Pro	Pro	Pro	Glu	Glu	Pro	Glu	Val	Thr	Glu	Cys	Pro	Gly	Met	Tyr	Ser
	370					375					380				
Glu	Leu	Asp	Val	Met	Ser	Thr	Ala	Thr	Gln	His	Gln	Thr	Val	Val	Gly
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Asp	Ala	Val	Ala	Glu	Thr	Gln	His	Val	Leu	Ser	Lys	Glu	Asp	Phe	Leu
			405					410						415	
Lys	Leu	Met	Leu	Pro	Asp	Ser	Pro	Leu	Val	Glu	Glu	Gly	Arg	Arg	Lys
		420					425						430		
Phe	Ser	Phe	Tyr	Gly	Asn	Leu	Ser	Pro	Arg	Arg	Ser	Leu	Tyr	Arg	Thr
	435					440						445			
Leu	Ser	Asp	Glu	Ser	Ile	Cys	Ser	Asn	Arg	Arg	Gly	Ser	Ser	Phe	Gly
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<210> 4015

<211> 823

<212> DNA

<213> Homo sapiens

<400> 4015

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<210> 4016

<211> 95

<212> PRT

<213> Homo sapiens

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			20					25					30		
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		35				40						45			
Glu	Ser	Pro	Thr	Lys	Pro	Lys	Gly	Arg	Pro	Lys	Lys	Asn	Ser	Ile	Pro
	50				55					60					
Thr	Ser	Glu	Gln	Leu	Thr	Glu	Gln	Glu	Arg	Ala	Lys	Asp	Ala	Glu	Lys
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Pro	Ala	Glu	Val	Pro	Gly	Glu	Pro	Ser	Asp	Arg	Ser	Arg	Glu	Asp	
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<210> 4017

<211> 1521

<212> DNA

<213> Homo sapiens

<400> 4017

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<210> 4018

<211> 480

<212> PRT

<213> Homo sapiens

<400> 4018

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<213> Homo sapiens

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<210> 4021

<211> 4209

<212> DNA

<213> Homo sapiens

<400> 4021

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3202

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<212> DNA

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<211> 1690

<212> PRT

<213> Homo sapiens

<400> 4024

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Ala	Glu	Gly	Lys	Val	Arg	Leu	Ala	Asn	Thr	Lys	Thr	Asn	Lys	Ser	Ser		
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Thr	Ile	Tyr	Gly	Thr	Glu	Ser	Tyr	Val	Val	Ser	Leu	Thr	Thr	Asn	Cys		
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Ser	Gly	Lys	Gly	Ile	Leu	Ser	Gly	His	Ala	Asp	Gly	Thr	Ile	Val	Arg		
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Tyr	Phe	Phe	Asp	Asp	Glu	Gly	Ser	Gly	Glu	Ser	Gln	Gly	Lys	Leu	Val		
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Asn	His	Pro	Cys	Pro	Pro	Tyr	Ala	Leu	Ala	Trp	Ala	Thr	Asn	Ser	Ile		
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His	Met	Leu	Gln	Thr	Phe	Asp	Tyr	Ser	Arg	Asp	Pro	Gln	Glu	Arg	Glu		
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Phe	Thr	Thr	Ala	Val	Ser	Ser	Pro	Gly	Gly	Gln	Ser	Val	Val	Leu	Gly		
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Ser	Tyr	Asp	Arg	Leu	Arg	Val	Phe	Asn	Trp	Ile	Pro	Arg	Arg	Ser	Ile		
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Trp	Glu	Glu	Ala	Lys	Pro	Lys	Glu	Ile	Thr	Asn	Leu	Tyr	Thr	Ile	Thr		
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Ala	Leu	Ala	Trp	Lys	Arg	Asp	Gly	Ser	Arg	Leu	Cys	Val	Gly	Thr	Leu		
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Cys	Gly	Gly	Val	Glu	Gln	Phe	Asp	Cys	Cys	Leu	Arg	Arg	Ser	Ile	Tyr		
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Lys	Asn	Lys	Phe	Glu	Leu	Thr	Tyr	Val	Gly	Pro	Ser	Gln	Val	Ile	Val		
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Lys	Asn	Leu	Ser	Ser	Gly	Thr	Arg	Val	Val	Leu	Lys	Ser	His	Tyr	Gly		
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Tyr	Glu	Val	Glu	Glu	Val	Lys	Ile	Leu	Gly	Lys	Glu	Arg	Tyr	Leu	Val		
	290					295					300						
Ala	His	Thr	Ser	Glu	Thr	Leu	Leu	Leu	Gly	Asp	Leu	Asn	Thr	Asn	Arg		
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Leu	Ser	Glu	Ile	Ala	Trp	Gln	Gly	Ser	Gly	Gly	Asn	Glu	Lys	Tyr	Phe		
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Phe	Glu	Asn	Glu	Asn	Val	Cys	Met	Ile	Phe	Asn	Ala	Gly	Glu	Leu	Thr		
			340					345					350				
Leu	Val	Glu	Tyr	Gly	Asn	Asn	Asp	Thr	Leu	Gly	Ser	Val	Arg	Thr	Glu		
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Phe	Met	Asn	Pro	His	Leu	Ile	Ser	Val	Arg	Ile	Asn	Glu	Arg	Cys	Gln		
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Arg	Gly	Thr	Glu	Asp	Asn	Lys	Lys	Leu	Ala	Tyr	Leu	Ile	Asp	Ile	Lys		
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Thr	Ile	Ala	Ile	Val	Asp	Leu	Ile	Gly	Gly	Tyr	Asn	Ile	Gly	Thr	Val		
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Ser	His	Glu	Ser	Arg	Val	Asp	Trp	Leu	Glu	Leu	Asn	Glu	Thr	Gly	His		
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Glu Ser Cys Ser Lys Thr Met	Ile Leu Asn Phe Cys Ser Tyr Met Gln	
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Trp Val Pro Gly Ser Asp Val	Leu Val Ala Gln Asn Arg Asn Ser Leu	
465	470	475
Cys Val Trp Tyr Asn Ile Glu Ala Pro	Glu Arg Val Thr Met Phe Thr	480
485	490	495
Ile Arg Gly Asp Val Ile Gly Leu	Glu Arg Gly Gly Gly Lys Thr Glu	
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Val Met Val Met Glu Gly Val Thr	Val Ala Tyr Thr Leu Asp Glu	
515	520	525
Gly Leu Ile Glu Phe Gly Thr Ala	Ile Asp Asp Gly Asn Tyr Ile Arg	
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Ala Thr Ala Phe Leu Glu Thr Leu	Glu Met Thr Pro Glu Thr Glu Ala	
545	550	555
Met Trp Lys Thr Leu Ser Lys Leu	Ala Leu Glu Ala Arg Gln Leu His	
565	570	575
Ile Ala Glu Arg Cys Phe Ser Ala	Leu Gly Gln Val Ala Lys Ala Arg	
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Phe Leu His Glu Thr Asn Glu Ile	Ala Asp Gln Val Ser Arg Glu Tyr	
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Gly Gly Glu Gly Thr Asp Phe Tyr	Gln Val Arg Ala Arg Leu Ala Met	
610	615	620
Leu Glu Lys Asn Tyr Lys Leu Ala	Glu Met Ile Phe Leu Glu Gln Asn	
625	630	635
Ala Val Glu Glu Ala Met Gly Met	Tyr Gln Glu Leu His Arg Trp Asp	
645	650	655
Glu Cys Ile Ala Val Ala Glu Ala	Lys Gly His Pro Ala Leu Glu Lys	
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Leu Arg Arg Ser Tyr Tyr Gln Trp	Leu Met Asp Thr Gln Gln Glu Glu	
675	680	685
Arg Ala Gly Glu Leu Gln Glu Ser	Gln Gly Asp Gly Leu Ala Ala Ile	
690	695	700
Ser Leu Tyr Leu Lys Ala Gly Leu	Pro Ala Lys Ala Ala Arg Leu Val	
705	710	715
Leu Thr Arg Glu Glu Leu Leu Ala	Asn Thr Glu Leu Val Glu His Ile	
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Thr Ala Ala Leu Ile Lys Gly Glu	Leu Tyr Glu Arg Ala Gly Asp Leu	
740	745	750
Phe Glu Lys Ile His Asn Pro Gln	Lys Ala Leu Glu Cys Tyr Arg Lys	
755	760	765
Gly Asn Ala Phe Met Lys Ala Val	Glu Leu Ala Arg Leu Ala Phe Pro	
770	775	780
Val Glu Val Val Lys Leu Glu Glu	Ala Trp Gly Asp His Leu Val Gln	
785	790	795
Gln Lys Gln Leu Asp Ala Ala Ile	Asn His Tyr Ile Glu Ala Arg Cys	
805	810	815
Ser Ile Lys Ala Ile Glu Ala Ala	Leu Gly Ala Arg Gln Trp Lys Lys	
820	825	830
Ala Ile Tyr Ile Leu Asp Leu Gln	Asp Arg Asn Thr Ala Ser Lys Tyr	
835	840	845
Tyr Pro Leu Val Ala Gln His Tyr	Ala Ser Leu Gln Glu Tyr Glu Ile	
850	855	860
Ala Glu Glu Leu Tyr Thr Lys Gly	Asp Arg Thr Lys Asp Ala Ile Asp	

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Met Tyr Thr Gln Ala Gly Arg Trp Glu Gln Ala His Lys Leu Ala Met						
	885			890		895
Lys Cys Met Arg Pro Glu Asp Val Ser Val Leu Tyr Ile Thr Gln Ala						
	900			905		910
Gln Glu Met Glu Lys Gln Gly Lys Tyr Arg Glu Ala Glu Arg Leu Tyr						
	915		920		925	
Val Thr Val Gln Glu Pro Asp Leu Ala Ile Thr Met Tyr Lys Lys His						
	930		935		940	
Lys Leu Tyr Asp Asp Met Ile Arg Leu Val Gly Lys His His Pro Asp						
945		950		955		960
Leu Leu Ser Asp Thr His Leu His Leu Gly Lys Glu Leu Glu Ala Glu						
	965		970			975
Gly Arg Leu Gln Glu Ala Glu Tyr His Tyr Leu Glu Ala Gln Glu Trp						
	980		985			990
Lys Ala Thr Val Asn Met Tyr Arg Ala Ser Gly Leu Trp Glu Glu Ala						
	995		1000			1005
Tyr Arg Val Ala Arg Thr Gln Gly Gly Ala Asn Ala His Lys His Val						
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Ala Tyr Leu Trp Ala Lys Ser Leu Gly Gly Glu Ala Ala Val Arg Leu						
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Leu Asn Lys Leu Gly Leu Leu Glu Ala Ala Val Asp His Ala Ala Asp						
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Asn Cys Ser Phe Glu Phe Ala Phe Glu Leu Ser Arg Leu Ala Leu Lys						
	1060		1065			1070
His Lys Thr Pro Glu Val His Leu Lys Tyr Ala Met Phe Leu Glu Asp						
	1075		1080			1085
Glu Gly Lys Phe Glu Glu Ala Glu Ala Glu Phe Ile Arg Ala Gly Lys						
	1090		1095			1100
Pro Lys Glu Ala Val Leu Met Phe Val His Asn Gln Asp Trp Glu Ala						
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Leu Val Gly Gln Ala Arg Gly Ala Leu Glu Glu Lys Asp Phe Gln Lys						
	1140		1145			1150
Ala Glu Gly Leu Leu Leu Arg Ala Gln Arg Pro Gly Leu Ala Leu Asn						
	1155		1160			1165
Tyr Tyr Lys Glu Ala Gly Leu Trp Ser Asp Ala Leu Arg Ile Cys Lys						
	1170		1175			1180
Asp Tyr Val Pro Ser Gln Leu Glu Ala Leu Gln Glu Tyr Glu Arg						
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Glu Ala Thr Lys Lys Gly Ala Arg Gly Val Glu Gly Phe Val Glu Gln						
	1205		1210			1215
Ala Arg His Trp Glu Gln Ala Gly Glu Tyr Ser Arg Ala Val Asp Cys						
	1220		1225			1230
Tyr Leu Lys Val Arg Asp Ser Gly Asn Ser Gly Leu Ala Glu Lys Cys						
	1235		1240			1245
Trp Met Lys Ala Ala Glu Leu Ser Ile Lys Phe Leu Pro Pro Gln Arg						
	1250		1255			1260
Asn Met Glu Val Val Leu Ala Val Gly Pro Gln Leu Ile Gly Ile Gly						
1265		1270		1275		1280
Lys His Ser Ala Ala Ala Glu Leu Tyr Leu Asn Leu Asp Leu Val Lys						
	1285		1290			1295
Glu Ala Ile Asp Ala Phe Ile Glu Gly Glu Glu Trp Asn Lys Ala Lys						

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Arg Val Ala Lys Glu Leu Asp	Pro Arg Tyr Glu Asp Tyr Val Asp Gln	
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His Tyr Lys Glu Phe Leu Lys Asn Gln Gly Lys Val Asp Ser Leu Val		
1330	1335	1340
Gly Val Asp Val Ile Ala Ala Leu Asp Leu Tyr Val Glu Gln Gly Gln		
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Trp Asp Lys Cys Ile Glu Thr Ala Thr Lys Gln Asn Tyr Lys Ile Leu		1360
1365	1370	1375
His Lys Tyr Val Ala Leu Tyr Ala Thr His Leu Ile Arg Glu Gly Ser		
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Ser Ala Gln Ala Leu Ala Leu Tyr Val Gln His Gly Ala Pro Ala Asn		
1395	1400	1405
Pro Gln Asn Phe Asn Ile Tyr Lys Arg Ile Phe Thr Asp Met Val Ser		
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Ser Pro Gly Thr Asn Cys Ala Glu Ala Tyr His Ser Trp Ala Asp Leu		
1425	1430	1435
Arg Asp Val Leu Phe Asn Leu Ala Val Leu Ser Pro Ser Ser Ser Val		
1445	1450	1455
Lys Thr Trp Lys Ser Ser Glu Ala Asn Ser Pro Ala His Glu Glu Phe		
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Lys Thr Met Leu Leu Ile Ala His Tyr Tyr Ala Thr Arg Ser Ala Ala		
1475	1480	1485
Gln Ser Val Lys Gln Leu Glu Thr Val Ala Ala Arg Leu Ser Val Ser		
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Leu Leu Arg His Thr Gln Leu Leu Pro Val Asp Lys Ala Phe Tyr Glu		
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Ala Gly Ile Ala Ala Lys Ala Val Gly Trp Asp Asn Met Ala Phe Ile		
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Phe Leu Asn Arg Phe Leu Asp Leu Thr Asp Ala Ile Glu Glu Gly Thr		
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Leu Asp Gly Leu Asp His Ser Asp Phe Gln Asp Thr Asp Ile Pro Phe		
1555	1560	1565
Glu Val Pro Leu Pro Ala Lys Gln His Val Pro Glu Ala Glu Arg Glu		
1570	1575	1580
Glu Val Arg Asp Trp Val Leu Thr Val Ser Met Asp Gln Arg Leu Glu		
1585	1590	1595
Gln Val Leu Pro Arg Asp Glu Arg Gly Ala Tyr Glu Ala Ser Leu Val		
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Ala Ala Ser Thr Gly Val Arg Ala Leu Pro Cys Leu Ile Thr Gly Tyr		
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Pro Ile Leu Arg Asn Lys Ile Glu Phe Lys Arg Pro Gly Lys Ala Ala		
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Asn Lys Asp Asn Trp Asn Lys Phe Leu Met Ala Ile Lys Thr Ser His		
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<210> 4025

<211> 908

<212> DNA

<213> Homo sapiens

<400> 4025

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<210> 4026

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4026

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			20					25					30		
Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Asn	Gln	Cys	Phe	His	Val	Phe	Arg
		35					40					45			
Thr	Ser	Cys	Asn	Leu	Lys	Ser	His	Lys	Arg	Ile	His	Thr	Gly	Glu	Asn
	50					55					60				
His	His	Glu	Cys	Asn	Gln	Cys	Gly	Lys	Ala	Phe	Ser	Thr	Arg	Ser	Ser
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Leu	Thr	Gly	His	Asn	Cys	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys
			85						90					95	
Lys	Glu	Cys	Gly	Lys	Thr	Phe	Met	Tyr	Asn	Ser	Ser	Leu	Ile	Gln	His

			100					105					110				
Leu	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Lys	Glu	Cys	Gly		
		115						120					125				
Lys	Ala	Phe	Arg	Gln	His	Ser	His	Leu	Val	Thr	His	Gln	Lys	Ile	His		
	130						135					140					
Thr	Gly	Glu	Lys	Pro	Tyr	Gln	Cys	Thr	Glu	Cys	Gly	Lys	Ala	Phe	Arg		
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Arg	Arg	Ser	Leu	Leu	Ile	Gln	His	Arg	Arg	Ile	His	Ser	Gly	Glu	Lys		
			165						170					175			
Pro	Tyr	Glu	Cys	Lys	Glu	Cys	Gly	Lys	Leu	Phe	Ile	Trp	Arg	Thr	Ala		
		180						185					190				
Phe	Leu	Lys	His	Gln	Ser	Leu	His	Ala	Gly	Glu	Lys	Leu	Glu	Glu	Cys		
	195						200					205					
Glu	Lys	Xaa	Pro	Ser	Ala	Arg	Met	Arg	Ser	Leu	Gly	Glu	Xaa	Gln	Lys		
	210					215					220						
Ile	His	Gln	Glu	Glu	Lys	Ala	Tyr	Trp	Cys	Asn	Gln	Cys	Gly	Arg	Ala		
225					230				235					240			
Phe	Gln	Gly	Ser	Ser	Asp	Leu	Ile	Gly	His	Gln	Val	Thr	His	Thr	Gly		
			245					250					255				
Glu	Lys	Pro	Tyr	Glu	Cys	Lys	Glu	Cys	Gly	Xaa	Thr	Phe	Asn	Gln	Ser		
		260					265					270					
Ser	Asp	Leu	Arg	His	His	Arg	Ile	His	Ser	Gly	Glu	Lys	Pro	Tyr			
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Val	Cys	Asn	Lys	Cys	Gly	Lys	Ser	Phe	Arg	Gly	Ser	Ser	Asp				
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<210> 4027

<211> 941

<212> DNA

<213> Homo sapiens

<400> 4027

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 660

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<210> 4028

<211> 236

<212> PRT

<213> Homo sapiens

<400> 4028

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			20					25					30		
Lys	Glu	Leu	Met	Val	His	Val	Gly	Gly	Leu	Ile	Gln	Met	Gly	Cys	Val
		35					40					45			
Phe	Gln	Ser	Thr	Glu	Val	Lys	His	Val	Thr	Lys	Val	Glu	Trp	Ile	Phe
	50					55				60					
Ser	Gly	Arg	Arg	Ala	Lys	Glu	Glu	Ile	Val	Phe	Arg	Tyr	Tyr	His	Lys
65					70					75					80
Leu	Arg	Met	Ser	Ala	Glu	Tyr	Ser	Gln	Ser	Trp	Gly	His	Phe	Gln	Asn
				85				90						95	
Arg	Val	Asn	Leu	Val	Gly	Asp	Ile	Phe	Arg	Asn	Asp	Gly	Ser	Ile	Met
			100					105					110		
Leu	Gln	Gly	Val	Arg	Glu	Ser	Asp	Gly	Gly	Asn	Tyr	Thr	Cys	Ser	Ile
		115					120						125		
His	Leu	Gly	Asn	Leu	Val	Phe	Lys	Lys	Thr	Ile	Val	Leu	His	Val	Ser
	130					135					140				
Pro	Glu	Glu	Pro	Arg	Thr	Leu	Val	Thr	Pro	Ala	Ala	Leu	Arg	Pro	Leu
145					150					155					160
Val	Leu	Gly	Gly	Asn	Gln	Leu	Val	Ile	Ile	Val	Gly	Ile	Val	Cys	Ala
				165				170						175	
Thr	Ile	Leu	Leu	Leu	Pro	Val	Leu	Ile	Leu	Ile	Val	Lys	Lys	Thr	Cys
			180					185					190		
Gly	Asn	Lys	Ser	Ser	Val	Asn	Ser	Thr	Val	Leu	Val	Lys	Asn	Thr	Lys
		195					200					205			
Lys	Thr	Asn	Pro	Glu	Met	Lys	Glu	Lys	Pro	Cys	His	Phe	Glu	Arg	Cys
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<210> 4029

<211> 909

<212> DNA

<213> Homo sapiens

<400> 4029

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 120
 ctacatgctg ctgctgggtgc tgccgtgctg ggcgctcagc gaggtcagca tgcagggcga
 180
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 240
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 300
 ccattcttctg cggcaaaaac gtggtggcgcg tcgccaccaa ggcctgcacc tnntcctgga
 360
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 420
 ccacccccgc agcgcaactc ggtgcccgcg ccgcgcccgc cgctgcacgg cccgcctggg
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 540
 ccccgacac gccctgggg cgagagaca ccgggttggc ttggggcgcg cggtttgc
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 720
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 780
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 909

<210> 4030

<211> 169

<212> PRT

<213> Homo sapiens

<400> 4030

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Ala	Gly	Gln	Pro	Val	Gly	Ala	Ala	Ala	Leu	Arg	Ala	Ala	Ala	Val	Gly
			20					25						30	
Arg	Gly	Pro	His	Leu	Leu	Leu	Leu	Leu	His	Ala	Ala	Ala	Gly	Ala	Ala
			35					40					45		
Val	Arg	Gly	Ala	Gln	Arg	Gly	Gln	His	Ala	Gly	Arg	Ala	His	Ser	Ala
			50					55					60		
Ala	Glu	Asp	Asp	Ala	Val	Pro	Gly	Ala	Gln	Ser	Arg	His	Arg	Gln	Cys
65					70					75				80	
Gly	Gly	Pro	Cys	Trp	Arg	Ala	Pro	Pro	Thr	Trp	Arg	Cys	Ser	Gly	Thr
				85					90					95	
Ala	Val	Ser	Arg	Pro	Ser	Ser	Ser	Ala	Lys	Thr	Trp	Trp	Arg	Ser	Pro
				100					105					110	
Pro	Arg	Pro	Ala	Pro	Xaa	Pro	Gly	Val	Pro	Pro	Pro	Gly	Ala	Arg	Leu

115	120	125
Pro Xaa Pro Pro Ala Leu Ser Leu Glu Leu Gln Pro Pro Pro Pro Gln		
130	135	140
Arg Asn Ser Val Pro Pro Pro Pro Pro Leu His Gly Pro Pro Gly		
145	150	155
Xaa Pro Pro His Val Leu Ala His Ala		160
165		

<210> 4031
 <211> 1406
 <212> DNA
 <213> Homo sapiens

<400> 4031
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 180
 actacagctg caagaacttt tccagataaa aaggaacgtg aagaaatata gactttataaa
 240
 cagcaaatag cagattttacg ggaagatttg aaaagaaagg agaccaaatg gtcaagtaca
 300
 cacagccgtc tcagaagcca gatacaaatg ttagtcagag agaacacaga cctccgggaa
 360
 gaaataaaaag tgatggaaaag attccgactg gatgcctgga agagagcaga agccatagag
 420
 agcagcctcg aggtggagaa gaaggacaag cttgcgaaca catctgttcg atttcaaaac
 480
 agtcagattt cttcaggaac ccaggtagaa aaatacaaga aaaattatct tccaatgcaa
 540
 ggcaatccac ctcgaagatc caagtctgca cctcctcgtg atttaggcaa tttggataag
 600
 ggacaggctg cctctcccag ggagccactt gaaccactga acttcccaga tcttgaatat
 660
 aaagaggagg aggaagacca agacatacag ggagaaatca gtcactcctga tggaaagggtg
 720
 gaaaagggtt ataagaatgg gtgccgtgtt atactgtttc ccaatggaac tcgaaaggaa
 780
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 840
 atgccagacc aaagagtgat ctactactat gcagctgccc agaccactca cagcacatac
 900
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 960
 ggaagaaaag aaatcacgtt tcttgaccag actgttaaaa acttatttcc tgatggacaa
 1020
 gaagaaagca ttttcccaga tggtaaat gtcagagtac aacgtgatgg caacaaactc
 1080
 atagagttta ataatggcca aagagaacta catactgccc agttcaagag acgggaatac
 1140
 ccagatggca ctgttaaaac cgtatatgca aacggtcatc aagaaacgaa gtacagatcc
 1200

ggtcggataa gagttaagga caaggagggt aatgtgctaa tggacacgga gctgtgacga
 1260
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 1320
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 1380
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 1406

<210> 4032

<211> 418

<212> PRT

<213> Homo sapiens

<400> 4032

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Ala	Leu	Glu	Lys	Leu	Arg	Lys	Glu	Ile	Ala	Gly	Phe	Glu	Gln	Gln	Lys	20	25	30	
Ala	Lys	Glu	Leu	Ala	Arg	Ile	Glu	Glu	Phe	Lys	Lys	Glu	Glu	Met	Arg	35	40	45	
Lys	Leu	Gln	Lys	Glu	Arg	Lys	Val	Phe	Glu	Lys	Tyr	Thr	Thr	Ala	Ala	50	55	60	
Arg	Thr	Phe	Pro	Asp	Lys	Lys	Glu	Arg	Glu	Glu	Ile	Gln	Thr	Leu	Lys	65	70	75	80
Gln	Gln	Ile	Ala	Asp	Leu	Arg	Glu	Asp	Leu	Lys	Arg	Lys	Glu	Thr	Lys	85	90	95	
Trp	Ser	Ser	Thr	His	Ser	Arg	Leu	Arg	Ser	Gln	Ile	Gln	Met	Leu	Val	100	105	110	
Arg	Glu	Asn	Thr	Asp	Leu	Arg	Glu	Glu	Ile	Lys	Val	Met	Glu	Arg	Phe	115	120	125	
Arg	Leu	Asp	Ala	Trp	Lys	Arg	Ala	Glu	Ala	Ile	Glu	Ser	Ser	Leu	Glu	130	135	140	
Val	Glu	Lys	Lys	Asp	Lys	Leu	Ala	Asn	Thr	Ser	Val	Arg	Phe	Gln	Asn	145	150	155	160
Ser	Gln	Ile	Ser	Ser	Gly	Thr	Gln	Val	Glu	Lys	Tyr	Lys	Lys	Asn	Tyr	165	170	175	
Leu	Pro	Met	Gln	Gly	Asn	Pro	Pro	Arg	Arg	Ser	Lys	Ser	Ala	Pro	Pro	180	185	190	
Arg	Asp	Leu	Gly	Asn	Leu	Asp	Lys	Gly	Gln	Ala	Ala	Ser	Pro	Arg	Glu	195	200	205	
Pro	Leu	Glu	Pro	Leu	Asn	Phe	Pro	Asp	Pro	Glu	Tyr	Lys	Glu	Glu	Glu	210	215	220	
Glu	Asp	Gln	Asp	Ile	Gln	Gly	Glu	Ile	Ser	His	Pro	Asp	Gly	Lys	Val	225	230	235	240
Glu	Lys	Val	Tyr	Lys	Asn	Gly	Cys	Arg	Val	Ile	Leu	Phe	Pro	Asn	Gly	245	250	255	
Thr	Arg	Lys	Glu	Val	Ser	Ala	Asp	Gly	Lys	Thr	Ile	Thr	Val	Thr	Phe	260	265	270	
Phe	Asn	Gly	Asp	Val	Lys	Gln	Val	Met	Pro	Asp	Gln	Arg	Val	Ile	Tyr	275	280	285	
Tyr	Tyr	Ala	Ala	Ala	Gln	Thr	His	Thr	Thr	Tyr	Pro	Glu	Gly	Leu		290	295	300	
Glu	Val	Leu	His	Phe	Ser	Ser	Gly	Gln	Ile	Glu	Lys	His	Tyr	Pro	Asp				

<400> 4034																
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1				5					10					15		
Lys	Ser	Ile	Leu	Gly	Ala	Cys	Tyr	Gly	Gly	Ser	Phe	Ile	Gln	Phe	Thr	
			20					25					30			
Thr	Ser	Thr	Ala	Gly	Pro	Gln	Trp	Leu	Pro	Phe	Ser	Pro	Thr	Arg	Ala	
			35				40					45				
Leu	Gly	Gln	Ala	Ser	Ser	Ala	Pro	Val	Gly	Arg	Leu	Pro	Arg	Lys	Thr	

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      50              55              60
Gln Ala Pro Gly Ala Ala Cys Gln Asp Gln Thr Gly Gly Leu Ala Pro
65              70              75              80
Pro Pro Ala Met Cys Gly Glu Arg Ala Ser Pro Ser Gln Ser
      85              90

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<210> 4035
 <211> 343
 <212> DNA
 <213> Homo sapiens

<400> 4035
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 120
 tcctatggga gggacaaact ctcagaaaat agcaagagta ttttggaatc ctatctgagg
 180
 tataaacact cagaacctca tagcagtgtt caggaatcct atgtgaggga caaacattca
 240
 gaccacagca ggagcattct agaatcctat ttgaggaaca aacattcaga caatcgtagc
 300
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 343

<210> 4036
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 4036
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 Asp Asn Pro Ser Asn Val Leu Glu Ser Tyr Val Arg Asp Lys His Ser
 20 25 30
 Asp Pro Ser Ser Asn Val Leu Glu Ser Tyr Gly Arg Asp Lys Leu Ser
 35 40 45
 Glu Asn Ser Lys Ser Ile Leu Glu Ser Tyr Leu Arg Tyr Lys His Ser
 50 55 60
 Glu Pro His Ser Ser Val Gln Glu Ser Tyr Val Arg Asp Lys His Ser
 65 70 75 80
 Asp His Ser Arg Ser Ile Leu Glu Ser Tyr Leu Arg Asn Lys His Ser
 85 90 95
 Asp Asn Arg Ser Ser Val Leu Glu Ser Phe Phe Phe Leu Lys Leu Ser
 100 105 110
 Ile Ser

<210> 4037
 <211> 741
 <212> DNA
 <213> Homo sapiens

<400> 4037

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 120
 ggaggagaag ggggttggtct tgctgtctca gggcggcaga ggcagaagag aatctgagca
 180
 tacgtggacc tgtagccagg tgggcataga taaaaggaaa tattgtttgc cagtccctgc
 240
 tggaatgatg cctttacaca tctgtctgat ctgattgctc cactgttttc tgactttctct
 300
 tccctttcca gggttctagc ctgttcatct agcccatga tggctgtgga catcgagtac
 360
 agatacaact gcatggctcc ttccttgccg caagagaggt ttgcctttaa gatctcacca
 420
 aagcccagca aaccactgag gccttgattt cagctgagca gcaagaatga agccagtgga
 480
 atgggtggccc cggtgtgcca ggagaagaag gtgaaaaagc ggggtgtcctt cgcagacaac
 540
 caggggctgg ccttgacaat ggtcaaagtg ttctcggaat tcgatgaccc gctagatatg
 600
 ccattcaaca tcaccgagct cctagacaac attgtgagct tgacgacagc agagagcgag
 660
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 720
 caggccgacc acgtctgcct t
 741

<210> 4038

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4038

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Arg	Gln	Glu	Arg	Phe	Ala	Phe	Lys	Ile	Ser	Pro	Lys	Pro	Ser	Lys	Pro
			20					25					30		
Leu	Arg	Pro	Cys	Ile	Gln	Leu	Ser	Ser	Lys	Asn	Glu	Ala	Ser	Gly	Met
			35				40					45			
Val	Ala	Pro	Ala	Val	Gln	Glu	Lys	Lys	Val	Lys	Lys	Arg	Val	Ser	Phe
			50				55				60				
Ala	Asp	Asn	Gln	Gly	Leu	Ala	Leu	Thr	Met	Val	Lys	Val	Phe	Ser	Glu
65					70					75				80	
Phe	Asp	Asp	Pro	Leu	Asp	Met	Pro	Phe	Asn	Ile	Thr	Glu	Leu	Leu	Asp
				85					90				95		
Asn	Ile	Val	Ser	Leu	Thr	Thr	Ala	Glu	Ser	Glu	Ser	Phe	Val	Leu	Asp
			100					105					110		
Phe	Ser	Gln	Pro	Ser	Ala	Asp	Tyr	Leu	Asp	Phe	Arg	Asn	Arg	Leu	Gln
			115					120					125		
Ala	Asp	His	Val	Cys	Leu										

<210> 4039

<211> 1503

<212> DNA

<213> Homo sapiens

<400> 4039

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120
gagcgaggag ccctcgacg cgctagtctg cgagtgagcg ctcagcccgg cacctgttcc
180
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240
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360
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420
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480
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600
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720
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780
gaactcagca gaaagtggca agaagagggc gattagggcg cagaactttg gaagctgcta
840
cttacttgga atgcggggag accgacggtg cgaaggccct tctccaccg cagggtgggc
900
aagctctggg ggcaggtgga gagggcgggc aggggagaga cccagcggca ctgatcgct
960
tgtgaccgga agagtgaact gttaaaagcc acgcagcaga ctcaggggt ctcacaaatc
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1080
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1200
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1380
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1500

aaa
1503

<210> 4040
<211> 100
<212> PRT
<213> Homo sapiens

<400> 4040
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20 25 30
Ser Leu Arg Val Ser Ala Gln Pro Gly Thr Cys Ser Ser Ser Ala Ala
35 40 45
Ala Phe Pro Pro Leu Gly Pro Ala Pro Leu Ala Ala Pro Ala Arg Ser
50 55 60
Cys Asp Glu Ser Gly Pro Arg Gln Pro Asp Gly Arg Gly Gly Pro Ser
65 70 75 80
Trp Pro Thr Ala Ala Arg Arg Trp Ser Glu Pro Cys Ala Ala Ala Pro
85 90 95
Arg Arg Pro Trp
100

<210> 4041
<211> 573
<212> DNA
<213> Homo sapiens

<400> 4041
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120
tgtgttgcca attcagatga acagcttggg gagatgtttc tggaagaaaa aatcccctcg
180
atttctgatt taaagctagc aattcgaaga gctactctga aaagatcatt tactcctgta
240
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420
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480
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573

<210> 4042
<211> 191
<212> PRT

<213> Homo sapiens

<400> 4042

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      20           25           30
Asp His Arg Gln Glu Leu Ile Glu Cys Val Ala Asn Ser Asp Glu Gln
      35           40           45
Leu Gly Glu Met Phe Leu Glu Glu Lys Ile Pro Ser Ile Ser Asp Leu
      50           55           60
Lys Leu Ala Ile Arg Arg Ala Thr Leu Lys Arg Ser Phe Thr Pro Val
      65           70           75           80
Phe Leu Gly Ser Ala Leu Lys Asn Lys Gly Val Gln Pro Leu Leu Asp
      85           90           95
Ala Val Leu Glu Tyr Leu Pro Asn Pro Ser Glu Val Gln Asn Tyr Ala
      100          105          110
Ile Leu Asn Lys Glu Asp Asp Ser Lys Glu Lys Thr Lys Ile Leu Met
      115          120          125
Asn Ser Ser Arg Asp Asn Ser His Pro Phe Val Gly Leu Ala Phe Lys
      130          135          140
Leu Glu Val Gly Arg Phe Gly Gln Leu Thr Tyr Val Arg Ser Tyr Gln
      145          150          155          160
Gly Glu Leu Lys Lys Gly Asp Thr Ile Tyr Asn Thr Arg Thr Arg Lys
      165          170          175
Lys Val Arg Leu Gln Arg Leu Ala Arg Met His Ala Asp Met Met
      180          185          190

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<210> 4043

<211> 744

<212> DNA

<213> Homo sapiens

<400> 4043

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 120
ctcccaaaaa aagacccaaa agttaaaggt gtccaatcag cagctgtaca agcttttctt
 180
aaaaggaaaag aagaggagct gagacgaaaa gccttagagg agaaaaggag aaaagaggaa
 240
ctagtgaaaa agcgaattga gctcaaaccat gacaagaaa caagagctat ggccaagagg
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acaaaggata atttccatgg ttacaatggg attcctattg aggaaaagtc aaagaagagg
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caggcaacag aaagccatac cagccaagga accgaccgag agtatgaaat ggaagaagag
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<210> 4044

<211> 219

<212> PRT

<213> Homo sapiens

<400> 4044

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			20					25					30		
Arg	Lys	Glu	Glu	Glu	Leu	Arg	Arg	Lys	Ala	Leu	Glu	Glu	Lys	Arg	Arg
		35					40					45			
Lys	Glu	Glu	Leu	Val	Lys	Lys	Arg	Ile	Glu	Leu	Lys	His	Asp	Lys	Lys
	50					55					60				
Ala	Arg	Ala	Met	Ala	Lys	Arg	Thr	Lys	Asp	Asn	Phe	His	Gly	Tyr	Asn
65					70					75					80
Gly	Ile	Pro	Ile	Glu	Glu	Lys	Ser	Lys	Lys	Arg	Gln	Ala	Thr	Glu	Ser
				85					90					95	
His	Thr	Ser	Gln	Gly	Thr	Asp	Arg	Glu	Tyr	Glu	Met	Glu	Glu	Glu	Asn
			100					105					110		
Glu	Phe	Leu	Glu	Tyr	Asn	His	Ala	Glu	Ser	Glu	Gln	Glu	Tyr	Glu	Glu
		115					120					125			
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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4046

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Phe	Arg	Ala	Val	Ser	Thr	Val	Phe	Pro	Ala	Gln	Gln	Phe	Cys	Arg	Arg
	195					200						205			
Ile	Leu	Leu	Cys	Leu	Gln	Val	Xaa	Lys	Cys	Cys	Ile	Asn	Gly	Ala	Ser
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<212> PRT

<213> Homo sapiens

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Cys	Asn	Lys	Phe	Ile	Ala	Tyr	Ser	Thr	Val	Phe	Glu	Asp	Val	Val	Asp
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Val	Leu	Ala	Glu	Trp	Gly	Ser	Leu	Tyr	Val	Leu	Thr	Arg	Asp	Gly	Arg
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Val	His	Ala	Leu	Gln	Glu	Lys	Asp	Thr	Gln	Thr	Lys	Leu	Glu	Met	Leu
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Pro Ser Leu Glu Gly Arg	Ser Asp Arg Glu Ala	Pro Gly Cys Arg Ala
340	345	350
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355	360	365
Lys Ala Phe Leu Glu His	Met Ser Glu Val Gln	Pro Asp Ser Pro Gln
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<212> PRT

<213> Homo sapiens

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3238

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3241

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 <212> PRT
 <213> Homo sapiens

<400> 4064

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Asp Val Glu Leu Gly Ser Met Gln Val Met Asn Lys Thr Arg Arg Ile
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Met Glu Gln Gly Gly Thr His Phe Ile Asn Ala Phe Val Thr Thr Pro
          20           25           30
Met Cys Cys Pro Ser Arg Ser Ser Ile Leu Thr Gly Lys Tyr Val His
          35           40           45
Asn His Asn Thr Tyr Thr Asn Asn Glu Asn Cys Ser Ser Pro Ser Trp
          50           55           60
Gln Ala Gln His Glu Ser Arg Thr Phe Ala Val Tyr Leu Asn Ser Thr
65           70           75           80
Gly Tyr Arg Thr Ala Phe Phe Gly Lys Tyr Leu Asn Glu Tyr Asn Gly
          85           90           95
Ser Tyr Val Pro Gly Trp Lys Glu Trp Val Gly Leu Leu Lys Asn
          100          105          110
Ser Arg Phe Tyr Asn Tyr Thr Leu Cys Arg Asn Gly Val Lys Glu Lys
          115          120          125
His Gly Ser Asp Tyr Ser Lys Asp Tyr Leu Thr Asp Leu Ile Thr Asn
          130          135          140
Asp Ser Val Ser Phe Phe Arg Thr Ser Lys Lys Met Tyr Pro His Arg
145          150          155          160
Pro Val Leu Met Val Ile Ser His Ala Ala Pro His Gly Pro Glu Asp
          165          170          175
Ser Ala Pro Gln Tyr Ser Arg Leu Phe Pro Asn Ala Ser Gln His Ile
          180          185          190
Thr Pro Ser Tyr Asn Tyr Ala Pro Asp Pro Asp Lys His Trp Ile Met
          195          200          205
Arg Tyr Thr Gly Pro Met Lys Pro Ile His Met Glu Phe Thr Asn Met
          210          215          220
Leu Gln Arg Lys Arg Leu Gln Thr Leu Met Ser Val Asp Asp Ser Met
225          230          235          240
Glu Thr Ile Tyr Asn Met Leu Val Glu Thr Gly Glu Leu Asp Asn Thr
          245          250          255
Tyr Ile Val Tyr Thr Ala Asp His Gly Tyr His Ile Gly Gln Phe Gly
          260          265          270
Leu Val Lys Gly Lys Ser Met Pro Tyr Glu Phe Asp Ile Arg Val Pro
          275          280          285
Phe Tyr Val Arg Gly Pro Asn Val Glu Ala Gly Cys Leu Asn Pro His
          290          295          300
Ile Val Leu Asn Ile Asp Leu Ala Pro Thr Ile Leu Asp Ile Ala Gly
305          310          315          320
Leu Asp Ile Pro Ala Asp Met Asp Gly Lys Ser Ile Leu Lys Leu Leu
          325          330          335
Asp Thr Glu Arg Pro Val Asn Arg Phe His Leu Lys Lys Lys Met Arg
          340          345          350
Val Trp Arg Asp Ser Phe Leu Val Glu Arg Gly Lys Leu Leu His Lys
          355          360          365
Arg Asp Asn Asp Lys Val Asp Ala Gln Glu Glu Asn Phe Leu Pro Lys

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370	375	380
Tyr Gln Arg Val Lys Asp Leu Cys Gln Arg Ala Glu Tyr Gln Thr Ala		
385	390	395
Cys Glu Gln Leu Gly Gln Lys Trp Gln Cys Val Glu Asp Ala Thr Gly		400
	405	410
Lys Leu Lys Leu His Lys Cys Lys Gly Pro Met Arg Leu Gly Gly Ser		415
	420	425
Arg Ala Leu Ser Asn Leu Val Pro Lys Tyr Tyr Gly Gln Gly Ser Glu		430
	435	440
Ala Cys Thr Cys Asp Ser Gly Asp Tyr Lys Leu Ser Leu Ala Gly Arg		445
	450	455
Arg Lys Lys Xaa Leu Gln Glu Glu Xaa Tyr Lys Ala Ser Tyr Val Arg		460
465	470	475
Asn Arg Ser Ile Arg Ser Val Ala Ile Glu Val Asp Gly Arg Val Tyr		480
	485	490
His Val Gly Leu Gly Asp Ala Ala Gln Pro Arg Asn Leu Thr Lys Arg		495
	500	505
His Trp Pro Gly Ala Pro Glu Asp Gln Asp Asp Lys Asp Gly Gly Asp		510
	515	520
Xaa Ser Val Ala Leu Glu Ala Phe Pro Thr Thr Gln Pro Pro Thr Xaa		525
	530	535
Ile Lys Val Thr His Arg Cys Tyr Ile Leu Glu Asn Asp Thr Val Gln		540
545	550	555
Cys Asp Leu Asp Leu Tyr Lys Ser Leu Gln Ala Trp Lys Asp His Lys		560
	565	570
Leu His Ile Asp His Glu Ile Glu Thr Leu Gln Asn Lys Ile Lys Asn		575
	580	585
Leu Arg Glu Val Arg Gly His Leu Lys Lys Lys Arg Pro Glu Glu Cys		590
	595	600
Asp Cys His Lys Ile Ser Tyr His Thr Gln His Lys Gly Arg Leu Lys		605
	610	615
His Arg Gly Ser Ser Leu His Pro Phe Arg Lys Gly Leu Gln Glu Lys		620
625	630	635
Asp Lys Val Trp Leu Leu Arg Glu Gln Lys Arg Lys Lys Lys Leu Arg		640
	645	650
Lys Leu Leu Lys Arg Leu Gln Asn Asn Asp Thr Cys Ser Met Pro Gly		655
	660	665
Leu Thr Cys Phe Thr His Asp Asn Gln His Trp Gln Thr Ala Pro Phe		670
	675	680
Trp Thr Leu Gly Pro Phe Cys Ala Cys Thr Ser Ala Asn Asn Asn Thr		685
	690	695
Tyr Trp Cys Met Arg Thr Ile Asn Glu Thr His Asn Phe Leu Phe Cys		700
705	710	715
Glu Phe Ala Thr Gly Phe Leu Glu Tyr Phe Asp Leu Asn Thr Asp Pro		720
	725	730
Tyr Gln Leu Met Asn Ala Val Asn Thr Leu Asp Arg Asp Val Leu Asn		735
	740	745
Gln Leu His Val Gln Leu Met Glu Leu Arg Ser Cys Lys Gly Tyr Lys		750
	755	760
Gln Cys Asn Pro Arg Thr Arg Asn Met Asp Leu Gly Leu Lys Asp Gly		765
	770	775
Gly Ser Tyr Glu Gln Tyr Arg Gln Phe Gln Arg Arg Lys Trp Pro Glu		780
785	790	795
Met Lys Arg Pro Ser Ser Lys Ser Leu Gly Gln Leu Trp Glu Gly Trp		800

3254

			100					105					110				
Lys	Gly	Tyr	Glu	Glu	Asp	Val	Gly	Arg	Met	Thr	Met	Ile	Arg	Val	Val		
		115					120					125					
Ser	His	Thr	Ser	Val	Pro	Leu	Leu	Leu	Lys	Asn	Pro	Asp	Tyr	Phe	Phe		
	130					135					140						
Lys	Glu	Ala	Asn	Thr	Thr	Ile	Tyr	Val	Ile	Trp	Gly	Pro	Phe	Arg	Asn		
145					150					155					160		
Met	Arg	Lys	Asp	Gly	Asn	Gly	Ile	Val	Tyr	Asn	Met	Leu	Lys	Lys	Thr		
			165					170					175				
Val	Gly	Ile	Tyr	Pro	Asn	Ala	Gln	Ile	Tyr	Val	Thr	Thr	Glu	Lys	Arg		
		180						185					190				
Met	Ser	Tyr	Cys	Asp	Gly	Val	Leu	Arg	Arg	Lys	Xaa	Gly	Lys	Asp	Ser		
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Thr	Glu																
	210																

<210> 4067
 <211> 1800
 <212> DNA
 <213> Homo sapiens

<400> 4067
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 tcgccttccc gtgtttctca tcttcgaaaa attccatgtg atgtcaccga agcagagatc
 180
 atatcattag gtctaccatt tggcaaagta actaatcttt tgatgttgaa aggaaaaagc
 240
 caggctttct tagaaatggc ttctgaggaa gctgccgtta ctatggtgaa ttattacact
 300
 cctattactc ctcaccttcg aagccagcct gtttatattc agtattccaa tcacagagaa
 360
 cttaagactg acaatctacc taatcaagct cgagcccaag ctgcactgca ggctgtcagt
 420
 gccgtccaat caggaagcct ggccctttct ggaggtcctt ccaatgaagg cacagtecta
 480
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 540
 gaagttcttc atcagatatt ttctaaattt ggcacagtct tgaagattat cacctttaca
 600
 aagaataatc agtttcaagc cttgcttcag tatgctgacc cagtaaagc acattatgcc
 660
 aaaatggctc tggatggcca gaatatctat aatgcatgct gcactctgcg cattgacttc
 720
 tccaagctca ccagccttaa tgtgaaatat aataatgaca aaagcagaga cttcactcgc
 780
 ttagaccttc ctactggtga tggccagcca tcccttgaac cccctatggc tgctgctttt
 840
 ggtgcaccgg gtataatttc ttcaccatat gcaggggctg ctggatttgc cccagccatt
 900
 ggatttcctc aagctacagg tctatcagtt ccagctgttc ctggagctct tggtcctctc
 960

acaatcacct cttctgctgt cactggaagg atggccattc ctgggggctag tgggtatacca
 1020
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 1380
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 1620
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 1680
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<210> 4068

<211> 521

<212> PRT

<213> Homo sapiens

<400> 4068

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			20					25					30		
Arg	Lys	Ile	Pro	Cys	Asp	Val	Thr	Glu	Ala	Glu	Ile	Ile	Ser	Leu	Gly
		35					40					45			
Leu	Pro	Phe	Gly	Lys	Val	Thr	Asn	Leu	Leu	Met	Leu	Lys	Gly	Lys	Ser
		50				55					60				
Gln	Ala	Phe	Leu	Glu	Met	Ala	Ser	Glu	Glu	Ala	Ala	Val	Thr	Met	Val
65					70					75				80	
Asn	Tyr	Tyr	Thr	Pro	Ile	Thr	Pro	His	Leu	Arg	Ser	Gln	Pro	Val	Tyr
			85					90					95		
Ile	Gln	Tyr	Ser	Asn	His	Arg	Glu	Leu	Lys	Thr	Asp	Asn	Leu	Pro	Asn
		100						105					110		
Gln	Ala	Arg	Ala	Gln	Ala	Ala	Leu	Gln	Ala	Val	Ser	Ala	Val	Gln	Ser
		115					120					125			
Gly	Ser	Leu	Ala	Leu	Ser	Gly	Gly	Pro	Ser	Asn	Glu	Gly	Thr	Val	Leu
		130				135					140				
Pro	Gly	Gln	Ser	Pro	Val	Leu	Arg	Ile	Ile	Ile	Glu	Asn	Leu	Phe	Tyr

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Pro	Val	Thr	Leu	Glu	Val	Leu	His	Gln	Ile	Phe	Ser	Lys	Phe	Gly	Thr
			165					170						175	
Val	Leu	Lys	Ile	Ile	Thr	Phe	Thr	Lys	Asn	Asn	Gln	Phe	Gln	Ala	Leu
			180					185						190	
Leu	Gln	Tyr	Ala	Asp	Pro	Val	Asn	Ala	His	Tyr	Ala	Lys	Met	Ala	Leu
		195					200					205			
Asp	Gly	Gln	Asn	Ile	Tyr	Asn	Ala	Cys	Cys	Thr	Leu	Arg	Ile	Asp	Phe
	210					215					220				
Ser	Lys	Leu	Thr	Ser	Leu	Asn	Val	Lys	Tyr	Asn	Asn	Asp	Lys	Ser	Arg
	225				230					235					240
Asp	Phe	Thr	Arg	Leu	Asp	Leu	Pro	Thr	Gly	Asp	Gly	Gln	Pro	Ser	Leu
			245						250					255	
Glu	Pro	Pro	Met	Ala	Ala	Ala	Phe	Gly	Ala	Pro	Gly	Ile	Ile	Ser	Ser
			260					265					270		
Pro	Tyr	Ala	Gly	Ala	Ala	Gly	Phe	Ala	Pro	Ala	Ile	Gly	Phe	Pro	Gln
	275					280						285			
Ala	Thr	Gly	Leu	Ser	Val	Pro	Ala	Val	Pro	Gly	Ala	Leu	Gly	Pro	Leu
	290				295					300					
Thr	Ile	Thr	Ser	Ser	Ala	Val	Thr	Gly	Arg	Met	Ala	Ile	Pro	Gly	Ala
	305				310					315					320
Ser	Gly	Ile	Pro	Gly	Asn	Ser	Val	Leu	Leu	Val	Thr	Asn	Leu	Asn	Pro
			325					330					335		
Asp	Leu	Ile	Thr	Pro	His	Gly	Leu	Phe	Ile	Leu	Phe	Gly	Val	Tyr	Gly
		340				345						350			
Asp	Val	His	Arg	Val	Lys	Ile	Met	Phe	Asn	Lys	Lys	Glu	Asn	Ala	Leu
	355					360						365			
Val	Gln	Met	Ala	Asp	Ala	Asn	Gln	Ala	Gln	Leu	Ala	Met	Asn	His	Leu
	370					375				380					
Ser	Gly	Gln	Arg	Leu	Tyr	Gly	Lys	Val	Leu	Arg	Ala	Thr	Leu	Ser	Lys
	385				390					395				400	
His	Gln	Ala	Val	Gln	Leu	Pro	Arg	Glu	Gly	Gln	Glu	Asp	Gln	Gly	Leu
			405					410					415		
Thr	Lys	Asp	Phe	Ser	Asn	Ser	Pro	Leu	His	Arg	Phe	Lys	Lys	Pro	Gly
		420				425							430		
Ser	Lys	Asn	Phe	Gln	Asn	Ile	Phe	Pro	Pro	Ser	Ala	Thr	Leu	His	Leu
	435					440						445			
Ser	Asn	Ile	Pro	Pro	Ser	Val	Thr	Val	Asp	Asp	Leu	Lys	Asn	Leu	Phe
	450					455					460				
Ile	Glu	Ala	Gly	Cys	Ser	Val	Lys	Ala	Phe	Lys	Phe	Phe	Gln	Lys	Asp
	465				470					475				480	
Arg	Lys	Met	Ala	Leu	Ile	Gln	Leu	Gly	Ser	Val	Glu	Glu	Ala	Ile	Gln
			485					490						495	
Ala	Leu	Ile	Glu	Leu	His	Asn	His	Asp	Leu	Gly	Glu	Asn	His	His	Leu
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		515					520								

<210> 4069

<211> 714

<212> DNA

<213> Homo sapiens

<400> 4069

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 120
 ttccagcaca cccagcatct ggcaatatca aagcataatc ttatgttcct ttataaccatc
 180
 tttattgtgg ccacaaagat aaccatgatg actacacaga cttctactat gacatttgct
 240
 ccttttgagg atacattgag ttggatgcta tttggctggc agcagccgtt ttcacatgt
 300
 gagaagaaaa gtgaagcaaa gtcaccttcc aatggcggtg ggtcattggc ctcaaagccg
 360
 gtagatgttg cctcagataa tgttaaaaag aaacatacta agaagaatga ataaatttac
 420
 gtgatgagct ctacaaggcc aaaaattttt tttcttatct acctgttata ttgtgcta
 480
 tttctatgt atgtgatgtg aaatgaagac tatatatatg gaatggaggt gacagaaaga
 540
 aagaaattct ttgtttgagg gagacttccc ctttctggat tgtatttgta gagtgttacg
 600
 agtgtatcat gtgattatgc tttaccggta taagagattc tgttgtgatt atttgaatag
 660
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 714

<210> 4070
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 4070
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 Phe Gln His Thr Gln His Leu Ala Ile Ser Lys His Asn Leu Met Phe
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 Leu Tyr Thr Ile Phe Ile Val Ala Thr Lys Ile Thr Met Met Thr Thr
 35 40 45
 Gln Thr Ser Thr Met Thr Phe Ala Pro Phe Glu Asp Thr Leu Ser Trp
 50 55 60
 Met Leu Phe Gly Trp Gln Gln Pro Phe Ser Ser Cys Glu Lys Lys Ser
 65 70 75 80
 Glu Ala Lys Ser Pro Ser Asn Gly Val Gly Ser Leu Ala Ser Lys Pro
 85 90 95
 Val Asp Val Ala Ser Asp Asn Val Lys Lys Lys His Thr Lys Lys Asn
 100 105 110
 Glu

<210> 4071
 <211> 601
 <212> DNA
 <213> Homo sapiens

<400> 4071

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 120
 catccacgat tgctgtagt tctgcaggc actgcccctc cagctggaga cgtgcatcac
 180
 ccacacacca ggccaggctg aggtggaaag aaggatcctg gtagaaagtg gtgaggttga
 240
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 300
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 360
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 420
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 480
 tccttaccag cggggggacg agtgcgacacc ttccccacg agcgaggcaa ctggggcacc
 540
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 600
 c
 601

<210> 4072

<211> 175

<212> PRT

<213> Homo sapiens

<400> 4072

Met	Val	His	Arg	Arg	Gly	Trp	Pro	Ser	Cys	Leu	Ala	Arg	Gly	Gly	Arg
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Cys	Ala	Leu	Val	Pro	Arg	Leu	Val	Arg	Met	Lys	Val	Phe	His	Leu	Ser
			20					25				30			
Leu	Ser	Gln	Ser	Val	Val	Leu	Arg	His	His	Trp	Ile	Leu	Pro	Phe	Val
		35					40					45			
Gln	Ala	Leu	Lys	Ala	Arg	Met	Thr	Ser	Phe	His	Arg	Phe	Phe	Phe	Thr
	50					55					60				
Ala	Asn	Gln	Val	Lys	Ile	Tyr	Thr	Asn	Gln	Glu	Lys	Thr	Arg	Thr	Phe
65					70					75					80
Ile	Gly	Leu	Glu	Val	Thr	Ser	Gly	His	Ala	Gln	Phe	Leu	Asp	Leu	Val
				85					90					95	
Ser	Glu	Val	Asp	Arg	Val	Met	Glu	Glu	Phe	Asn	Leu	Thr	Thr	Phe	Tyr
			100						105					110	
Gln	Asp	Pro	Ser	Phe	His	Leu	Ser	Leu	Ala	Trp	Cys	Val	Gly	Asp	Ala
		115					120					125			
Arg	Leu	Gln	Leu	Glu	Gly	Gln	Cys	Leu	Gln	Glu	Leu	Gln	Ala	Ile	Val
		130				135					140				
Asp	Gly	Phe	Glu	Asp	Ala	Glu	Val	Leu	Leu	Arg	Val	His	Thr	Glu	Gln
145					150					155					160
Val	Arg	Cys	Lys	Ser	Gly	Asn	Lys	Phe	Phe	Ser	Met	Pro	Leu	Lys	
				165					170					175	

<210> 4073

<211> 1864

<212> DNA

<213> Homo sapiens

<400> 4073

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180
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240
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360
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420
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480
gagacaacaa atagcatggg agaatcaatt aaacactgca ttgtgttgct gcagattgcc
540
aaagaccaga gtaatgcgga gaagcacgca gatggaatga taagtactat taatccccga
600
gatgcaatat atcaacctag tcctttggaa cctgtgatca gcacaatgcc ttcccagact
660
gtgttacctc cagaacctgt tcagttgtgt aagtcagagc agcgtccatc ttccctacca
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780
agtggccatt caccaccgag tagcagtctc acttctccaa gccacgtgaa cttgtctcca
840
aatacagtcc cagagttctc ttactccagc agtgaagatg aattttatga tgctgatgaa
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960
ctgacacaca gcagctcggg aaatagtcta aaacgcccag ataccacaga atcacttaat
1020
tcttccttgt ccaatggaac aagtgatgct gacctgttg attcacatga tgacagagat
1080
gatgatgcgg aggcagggtc tgtggaggag cacaagagcg ttatcatgca tctcttgctg
1140
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1440
gaaggaccag ttccctgggt ttccaaaaac agtgtaacat ttgtggctga gcaggtttcc
1500

catcatccac ccatttcagc cttttatgct gagtggttta acaagaagat acaattcaat
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 1860
 attg
 1864

<210> 4074

<211> 456

<212> PRT

<213> Homo sapiens

<400> 4074

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Asp	Gln	Ser	Asn	Ala	Glu	Lys	His	Ala	Asp	Gly	Met	Ile	Ser	Thr	Ile
			20					25				30			
Asn	Pro	Val	Asp	Ala	Ile	Tyr	Gln	Pro	Ser	Pro	Leu	Glu	Pro	Val	Ile
		35					40					45			
Ser	Thr	Met	Pro	Ser	Gln	Thr	Val	Leu	Pro	Pro	Glu	Pro	Val	Gln	Leu
	50					55					60				
Cys	Lys	Ser	Glu	Gln	Arg	Pro	Ser	Ser	Leu	Pro	Val	Gly	Pro	Val	Leu
65					70					75					80
Ala	Thr	Leu	Gly	His	His	Gln	Thr	Pro	Thr	Pro	Asn	Ser	Thr	Gly	Ser
				85				90						95	
Gly	His	Ser	Pro	Pro	Ser	Ser	Ser	Leu	Thr	Ser	Pro	Ser	His	Val	Asn
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Leu	Ser	Pro	Asn	Thr	Val	Pro	Glu	Phe	Ser	Tyr	Ser	Ser	Ser	Glu	Asp
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Glu	Phe	Tyr	Asp	Ala	Asp	Glu	Phe	His	Gln	Ser	Gly	Ser	Ser	Pro	Lys
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Ser	Gly	Asn	Ser	Leu	Lys	Arg	Pro	Asp	Thr	Thr	Glu	Ser	Leu	Asn	Ser
			165					170						175	
Ser	Leu	Ser	Asn	Gly	Thr	Ser	Asp	Ala	Asp	Leu	Phe	Asp	Ser	His	Asp
		180						185					190		
Asp	Arg	Asp	Asp	Asp	Ala	Glu	Ala	Gly	Ser	Val	Glu	Glu	His	Lys	Ser
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Val	Ile	Met	His	Leu	Leu	Ser	Gln	Val	Arg	Leu	Gly	Met	Asp	Leu	Thr
	210					215					220				
Lys	Val	Val	Leu	Pro	Thr	Phe	Ile	Leu	Glu	Arg	Arg	Ser	Leu	Leu	Glu
225					230					235					240
Met	Tyr	Ala	Asp	Phe	Phe	Ala	His	Pro	Asp	Leu	Phe	Val	Ser	Ile	Ser
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Asp	Gln	Lys	Asp	Pro	Lys	Asp	Arg	Met	Val	Gln	Val	Val	Lys	Trp	Tyr

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                260                265                270
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Tyr Asn Pro Ile Leu Gly Glu Ile Phe Gln Cys His Trp Thr Leu Pro
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Asn Asp Thr Glu Glu Asn Thr Glu Leu Val Ser Glu Gly Pro Val Pro
305                310                315                320
Trp Val Ser Lys Asn Ser Val Thr Phe Val Ala Glu Gln Val Ser His
                325                330                335
His Pro Pro Ile Ser Ala Phe Tyr Ala Glu Cys Phe Asn Lys Lys Ile
                340                345                350
Gln Phe Asn Ala His Ile Trp Thr Lys Ser Lys Phe Leu Gly Met Ser
                355                360                365
Ile Gly Val His Asn Ile Gly Gln Gly Cys Val Ser Cys Leu Asp Tyr
370                375                380
Asp Glu His Tyr Ile Leu Thr Phe Pro Asn Gly Tyr Gly Arg Ser Ile
385                390                395                400
Leu Thr Val Pro Trp Val Glu Leu Gly Gly Glu Cys Asn Ile Asn Cys
                405                410                415
Ser Lys Thr Gly Tyr Ser Ala Asn Ile Phe His Thr Lys Pro Phe
                420                425                430
Tyr Gly Gly Lys Lys His Arg Ile Thr Ala Glu Ile Phe Ser Pro Asn
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Asp Lys Lys Ser Phe Cys Ser Ile
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<210> 4075
 <211> 2492
 <212> DNA
 <213> Homo sapiens

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180
tgcattgcaag agatgggaaa tggaaaggca aaccgacttt atgaagccta tcttcctgag
240
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300
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360
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420
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480
tccacagcgc ctgtcatgga tttgttgggc cttgatgctc ctgtggcctg ctccattgca
540
aatagtaaga ccagcaatac cctagagaag gatttagatc tgttggcctc tgttccatcc
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ccttcttctt cgggttcag aaagggtgta ggttccatgc caactgcagg gagtgcggcg
660

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780
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840
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1080
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1140
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2280

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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa
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<210> 4076
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 <212> PRT
 <213> Homo sapiens

<400> 4076
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 Ala Gly Ile His Arg Asn Leu Gly Val His Ile Ser Arg Val Lys Ser
 35 40 45
 Val Asn Leu Asp Gln Trp Thr Gln Glu Gln Ile Gln Cys Met Gln Glu
 50 55 60
 Met Gly Asn Gly Lys Ala Asn Arg Leu Tyr Glu Ala Tyr Leu Pro Glu
 65 70 75 80
 Thr Phe Arg Arg Pro Gln Ile Asp Pro Ala Val Glu Gly Phe Ile Arg
 85 90 95
 Asp Lys Tyr Glu Lys Lys Lys Tyr Met Asp Arg Ser Leu Asp Ile Asn
 100 105 110
 Ala Phe Arg Lys Glu Lys Asp Asp Lys Trp Lys Arg Gly Ser Glu Pro
 115 120 125
 Val Pro Glu Lys Lys Leu Glu Pro Val Val Phe Glu Lys Val Lys Met
 130 135 140
 Pro Gln Lys Lys Glu Asp Pro Gln Leu Pro Arg Lys Ser Ser Pro Lys
 145 150 155 160
 Ser Thr Ala Pro Val Met Asp Leu Leu Gly Leu Asp Ala Pro Val Ala
 165 170 175
 Cys Ser Ile Ala Asn Ser Lys Thr Ser Asn Thr Leu Glu Lys Asp Leu
 180 185 190
 Asp Leu Leu Ala Ser Val Pro Ser Pro Ser Ser Ser Gly Ser Arg Lys
 195 200 205
 Val Val Gly Ser Met Pro Thr Ala Gly Ser Ala Gly Ser Val Pro Glu
 210 215 220
 Asn Leu Asn Leu Phe Pro Glu Pro Gly Ser Lys Ser Glu Glu Ile Gly
 225 230 235 240
 Lys Lys Gln Leu Ser Lys Asp Ser Ile Leu Ser Leu Tyr Gly Ser Gln
 245 250 255
 Thr Pro Gln Met Pro Thr Gln Ala Met Phe Met Ala Pro Ala Gln Met
 260 265 270
 Ala Tyr Pro Thr Ala Tyr Pro Ser Phe Pro Gly Val Thr Pro Pro Asn
 275 280 285
 Ser Ile Met Gly Ser Met Met Pro Pro Pro Val Gly Met Val Ala Gln
 290 295 300
 Pro Gly Ala Ser Gly Met Val Ala Pro Met Ala Met Pro Ala Gly Tyr

305		310		315		320
Met Gly Gly Met Gln Ala Ser Met Met Gly Val Pro Asn Gly Met Met						
		325		330		335
Thr Thr Gln Gln Ala Gly Tyr Met Ala Gly Met Ala Ala Met Pro Gln						
		340		345		350
Thr Val Tyr Gly Val Gln Pro Ala Gln Gln Leu Gln Trp Asn Leu Thr						
		355		360		365
Gln Met Thr Gln Gln Met Ala Gly Met Asn Phe Tyr Gly Ala Asn Gly						
		370		375		380
Met Met Asn Tyr Gly Gln Ser Met Ser Gly Gly Asn Gly Gln Ala Ala						
385		390		395		400
Asn Gln Thr Leu Ser Pro Gln Met Trp Lys						
		405		410		

<210> 4077

<211> 684

<212> DNA

<213> Homo sapiens

<400> 4077

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 180
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 240
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 420
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<210> 4078

<211> 194

<212> PRT

<213> Homo sapiens

<400> 4078

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<210> 4079
<211> 783
<212> DNA
<213> Homo sapiens
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3266

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780

nta

783

<210> 4080

<211> 101

<212> PRT

<213> Homo sapiens

<400> 4080

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Ile Cys Lys Glu Arg Arg Leu Cys Arg Trp Glu Leu Phe Thr Gln Ala
20 25 30

Leu Thr Pro Ser Val Cys Leu Pro Ser Lys Leu His Cys Pro Asn Arg
35 40 45

Glu Ala Leu His Ala Gln Pro Gly Glu Gln Gly Trp Met Gly Leu Lys
50 55 60

Arg Ala Gln Pro Ser Pro Glu Arg Thr Leu His Ser Asn Leu Pro Gln
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Ser Trp Gly Lys His Glu Gly Cys Pro Ser Thr Glu Val Asn Pro Gly
85 90 95

His Ala Arg Thr Lys

100

<210> 4081

<211> 645

<212> DNA

<213> Homo sapiens

<400> 4081

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120

ttgggcaaag aagagctaag tggaactatg gaacagatct tcatgaatgt cgctatcttt
180

gaggatgaag tttttgctgg agttaccaca caccaggaac tctttccaca cagcctgctg
240

agtgtgattg ccaacttcac ccctttctct gatcacaacc agagtccacg gaacatgtac
300

caatgccaga tgggtaagca aactatgggc tttccacttc tcacttatca agaccgatcg
360

gataacaaac tgtatcgtct tcagactcct cagagtcctt tgggtgagacc ctccatgtat
420

gattattatg acatggataa ctatccaatt gggaccaatg ccatcggttg tgtgatttct
480

tacactggct atgatatgga agatgccatg attgtgaata aggcctcttg ggaacgagge
540

tttgcccatg gaagtgtcta caagtctgag ttcataagacc tctctgaaaa aattaaacaa
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645

<210> 4082
 <211> 215
 <212> PRT
 <213> Homo sapiens

<400> 4082
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 35 40 45
 Thr Met Glu Gln Ile Phe Met Asn Val Ala Ile Phe Glu Asp Glu Val
 50 55 60
 Phe Ala Gly Val Thr Thr His Gln Glu Leu Phe Pro His Ser Leu Leu
 65 70 75 80
 Ser Val Ile Ala Asn Phe Ile Pro Phe Ser Asp His Asn Gln Ser Pro
 85 90 95
 Arg Asn Met Tyr Gln Cys Gln Met Gly Lys Gln Thr Met Gly Phe Pro
 100 105 110
 Leu Leu Thr Tyr Gln Asp Arg Ser Asp Asn Lys Leu Tyr Arg Leu Gln
 115 120 125
 Thr Pro Gln Ser Pro Leu Val Arg Pro Ser Met Tyr Asp Tyr Tyr Asp
 130 135 140
 Met Asp Asn Tyr Pro Ile Gly Thr Asn Ala Ile Val Ala Val Ile Ser
 145 150 155 160
 Tyr Thr Gly Tyr Asp Met Glu Asp Ala Met Ile Val Asn Lys Ala Ser
 165 170 175
 Trp Glu Arg Gly Phe Ala His Gly Ser Val Tyr Lys Ser Glu Phe Ile
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 Asp Leu Ser Glu Lys Ile Lys Gln Gly Asp Ser Ser Leu Val Phe Gly
 195 200 205
 Ile Lys Pro Gly Asp Pro Arg
 210 215

<210> 4083
 <211> 2983
 <212> DNA
 <213> Homo sapiens

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 180
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 300
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 360

ggaacagga tggcaagttt aaaacagatc tggatatgtg gcttcagga cacatctgta
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720
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780
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<210> 4084

<211> 362

<212> PRT

<213> Homo sapiens

<400> 4084

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Val	Tyr	Gly	Leu	Asn	Phe	Ala	Ser	Lys	Glu	Glu	Ala	Thr	Thr	Phe	Ser
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Pro	Ser	Ser	Gln	Arg	Gln	Val	Gln	Asn	Gly	Pro	Ser	Pro	Asp	Glu	Met
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Asp	Ile	Gln	Arg	Arg	Gln	Val	Met	Glu	Gln	His	Gln	Gln	Gln	Arg	Gln
				85					90					95	
Glu	Ser	Leu	Glu	Arg	Arg	Thr	Ser	Ala	Thr	Gly	Pro	Ile	Leu	Pro	Pro

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Gly	His	Pro	Ser	Ser	Ala	Ala	Ser	Ala	Pro	Val	Ser	Cys	Ser	Gly	Pro		
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Pro	Pro	Pro	Pro	Pro	Pro	Pro	Val	Pro	Pro	Pro	Pro	Thr	Gly	Ala	Thr		
		130						135				140					
Pro	Pro	Pro	Pro	Pro	Pro	Leu	Pro	Ala	Gly	Gly	Ala	Gln	Gly	Ser	Ser		
145						150					155				160		
His	Asp	Glu	Ser	Ser	Met	Ser	Gly	Leu	Ala	Ala	Ala	Ile	Ala	Gly	Ala		
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Lys	Leu	Arg	Arg	Val	Gln	Arg	Pro	Glu	Asp	Ala	Ser	Gly	Gly	Ser	Ser		
			180						185					190			
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		210					215					220					
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Glu	Ser	Gln	Met	Glu	Asp	Pro	Ser	Thr	Ser	Pro	Ser	Pro	Gly	Thr	Arg		
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Ala	Ala	Ser	Gln	Pro	Pro	Asn	Ser	Ser	Glu	Ala	Gly	Arg	Lys	Pro	Trp		
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Leu	Asp	Ala	Phe	Asp	Leu	Asp	Arg	Met	Lys	Gln	Glu	Ile	Leu	Glu	Glu		
			325						330					335			
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<210> 4085

<211> 2673

<212> DNA

<213> Homo sapiens

<400> 4085

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<210> 4086

<211> 789

<212> PRT

<213> Homo sapiens

<400> 4086

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Phe	Leu	Leu	Val	Phe	Ala	Ile	Ala	Ala	Ala	Tyr	Val	Trp	Ile	Glu	
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Gly	Thr	Lys	Asp	Pro	Ser	Arg	Asn	Arg	Tyr	Lys	Leu	Phe	Leu	Glu	Cys
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Thr	Leu	Ile	Leu	Thr	Ser	Val	Val	Pro	Pro	Glu	Leu	Pro	Ile	Glu	Leu
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Ser	Leu	Ala	Val	Asn	Thr	Ser	Leu	Ile	Ala	Leu	Ala	Lys	Leu	Tyr	Met
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Tyr	Cys	Thr	Glu	Pro	Phe	Arg	Ile	Pro	Phe	Ala	Gly	Lys	Val	Glu	Val
			100					105					110		
Cys	Cys	Phe	Asp	Lys	Thr	Gly	Thr	Leu	Thr	Ser	Asp	Ser	Leu	Val	Val
		115				120					125				
Arg	Gly	Val	Ala	Gly	Leu	Arg	Asp	Gly	Lys	Glu	Val	Thr	Pro	Val	Ser
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Ser	Ile	Pro	Val	Glu	Thr	His	Arg	Ala	Leu	Ala	Ser	Cys	His	Ser	Leu
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Met	Gln	Leu	Asp	Asp	Gly	Thr	Leu	Val	Gly	Asp	Pro	Leu	Glu	Lys	Ala
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Pro	Arg	Ser	Ile	Lys	Thr	Gln	Gly	Leu	Lys	Ile	His	Gln	Arg	Phe	His

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	245	250
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	260	265
Tyr Lys Glu Leu Gly His Leu Thr His Gln Gln Ala Arg Glu Val Lys		270
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Arg Glu Ala Leu Glu Cys Ser Leu Lys Phe Val Gly Phe Ile Val Val		285
	290	295
Ser Cys Pro Leu Lys Ala Asp Ser Lys Ala Val Ile Arg Glu Ile Gln		300
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Asn Ala Ser His Arg Val Val Met Ile Thr Gly Asp Asn Pro Leu Thr		320
	325	330
Ala Cys His Val Ala Gln Glu Leu His Phe Ile Glu Lys Ala His Thr		335
	340	345
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	355	360
Ser Ile Asp Gly Ser Ile Val Leu Pro Leu Xaa Pro Gly Ala Pro Gln		365
	370	375
Arg His Trp Pro Trp Ser Thr His Xaa Cys Leu Thr Gly Asp Gly Leu		380
385	390	395
Ala His Leu Gln Ala Thr Asp Pro Gln Gln Leu Leu Arg Leu Ile Pro		400
	405	410
His Val Gln Val Phe Ala Arg Val Ala Pro Lys Gln Lys Glu Phe Val		415
	420	425
Ile Thr Ser Leu Lys Glu Leu Gly Tyr Val Thr Leu Met Cys Gly Asp		430
	435	440
Gly Thr Asn Asp Val Gly Ala Leu Lys His Ala Asp Val Gly Val Ala		445
	450	455
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465	470	475
Arg Asp Ser Pro Thr Leu Ser Asn Ser Gly Ile Arg Ala Thr Ser Arg		480
	485	490
Thr Ala Lys Gln Arg Ser Gly Leu Pro Pro Ser Glu Glu Gln Pro Thr		495
	500	505
Ser Gln Arg Asp Arg Leu Ser Gln Val Leu Arg Asp Leu Glu Asp Glu		510
	515	520
Ser Thr Pro Ile Val Lys Leu Gly Asp Ala Ser Ile Ala Ala Pro Phe		525
	530	535
Thr Ser Lys Leu Ser Ser Ile Gln Cys Ile Cys His Val Ile Lys Gln		540
545	550	555
Gly Arg Cys Thr Leu Val Thr Thr Leu Gln Met Phe Lys Ile Leu Ala		560
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Gly Val Lys Phe Ser Asp Phe Gln Ala Thr Leu Gln Gly Leu Leu Leu		590
	595	600
Ala Gly Cys Phe Leu Phe Ile Ser Arg Ser Lys Pro Leu Lys Thr Leu		605
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Ser Arg Glu Arg Pro Leu Pro Asn Ile Phe Asn Leu Tyr Thr Ile Leu		620


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Tyr Arg Glu Ala Gln Ala Arg Ser Pro Xaa Arg Xaa Gln Glu Gln Phe
          660          665          670
Val Asp Leu Tyr Lys Glu Phe Glu Pro Ser Leu Val Asn Ser Thr Val
          675          680          685
Tyr Ile Met Ala Met Ala Met Gln Met Ala Thr Phe Ala Ile Asn Tyr
          690          695          700
Lys Gly Pro Pro Phe Met Glu Ser Leu Pro Glu Asn Lys Pro Leu Val
705          710          715          720
Trp Ser Leu Ala Val Ser Leu Leu Ala Ile Ile Gly Leu Leu Leu Gly
          725          730          735
Ser Ser Pro Asp Phe Asn Ser Gln Phe Gly Leu Val Asp Ile Pro Val
          740          745          750
Glu Phe Lys Leu Val Ile Ala Gln Val Leu Leu Leu Asp Phe Cys Leu
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<210> 4087

<211> 959

<212> DNA

<213> Homo sapiens

<400> 4087

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<210> 4088

<211> 319

<212> PRT

<213> Homo sapiens

<400> 4088

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Ala	Val	Ala	Arg	Val	Arg	Ser	Ala	Gly	Pro	Ser	Cys	Gln	Asn	Lys	Gly
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Asp	Leu	Val	Met	Glu	Ala	Leu	Leu	Glu	Gly	Ile	Gln	Asn	Arg	Gly	His
	50					55					60				
Gly	Gly	Gly	Phe	Leu	Thr	Ser	Cys	Glu	Ala	Glu	Leu	Gln	Glu	Leu	Met
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Lys	Gln	Ile	Asp	Ile	Met	Val	Ala	His	Lys	Lys	Ser	Glu	Trp	Glu	Gly
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Arg	Thr	His	Ala	Leu	Glu	Thr	Cys	Leu	Lys	Ile	Arg	Glu	Gln	Glu	Leu
			100					105					110		
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Lys	Gln	Arg	Leu	Ile	Tyr	Gln	Gln	Gln	Val	Ser	Ser	Leu	Glu	Ala	Gln
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Ile	Gln	His	Leu	Ser	Ser	Lys	Leu	Glu	Arg	Ala	Asn	Asp	Thr	Ile	Cys
		260						265					270		
Ala	Asn	Glu	Leu	Glu	Ile	Glu	Arg	Leu	Thr	Met	Arg	Val	Asn	Asp	Leu
	275						280					285			
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<210> 4089
 <211> 511
 <212> DNA
 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 Lys Asn Tyr Ala Leu Gln Glu His Val Ser Phe Val Ile Phe Leu Ser
 35 40 45
 Ser Asn Phe Phe Trp Arg Asp Glu Ser Phe Asp Leu Thr Leu Arg Ile
 50 55 60
 Gly Leu Lys Pro Phe Glu Arg Thr Lys Glu Ile Glu Ser Ala Phe Leu
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<210> 4091
 <211> 1526
 <212> DNA
 <213> Homo sapiens

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<210> 4092
<211> 146
<212> PRT

<213> Homo sapiens

<400> 4092

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Ile Trp Arg Lys Glu Pro Arg Met Val Cys Thr Arg Lys Thr Lys Thr
      50           55           60
Leu Val Ser Thr Cys Val Ile Leu Ser Gly Met Thr Asn Ile Ile Cys
65           70           75           80
Leu Leu Tyr Val Gly Trp Val Thr Asn Tyr Ile Ala Ser Val Tyr Val
      85           90           95
Arg Gly Gln Glu Pro Ala Pro Asp Lys Lys Leu Glu Glu Asp Lys Gly
      100           105           110
Asp Thr Leu Lys Ile Ile Glu Arg Leu Asp His Leu Glu Asn Val Ile
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<210> 4093

<211> 1519

<212> DNA

<213> Homo sapiens

<400> 4093

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<210> 4094

<211> 391

<212> PRT

<213> Homo sapiens

<400> 4094

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His	Asn	Val	Pro	Leu	Lys	Leu	Pro	Met	Pro	Glu	Pro	Gly	Glu	Leu	Glu
			20					25					30		
Glu	Arg	Phe	Ala	Ile	Val	Leu	Asn	Ala	Met	Asn	Leu	Pro	Pro	Asp	Lys
		35					40				45				
Ala	Arg	Leu	Leu	Arg	Gln	Tyr	Asp	Asn	Glu	Lys	Lys	Trp	Glu	Leu	Ile
	50					55					60				
Cys	Asp	Gln	Glu	Arg	Phe	Gln	Val	Lys	Asn	Pro	Pro	His	Thr	Tyr	Ile
65					70				75					80	
Gln	Lys	Leu	Lys	Gly	Tyr	Leu	Asp	Pro	Ala	Val	Thr	Arg	Lys	Lys	Phe
			85					90					95		
Arg	Arg	Arg	Val	Gln	Glu	Ser	Thr	Gln	Val	Leu	Arg	Glu	Leu	Glu	Ile
			100					105					110		
Ser	Leu	Arg	Thr	Asn	His	Ile	Gly	Trp	Val	Arg	Glu	Phe	Leu	Asn	Glu
		115					120					125			
Glu	Asn	Lys	Gly	Leu	Asp	Val	Leu	Val	Glu	Tyr	Leu	Ser	Phe	Ala	Gln
	130					135					140				
Tyr	Ala	Val	Thr	Phe	Asp	Phe	Glu	Ser	Val	Glu	Ser	Thr	Val	Glu	Ser

145		150		155		160
Ser Val Asp Lys	Ser Lys Pro Trp Ser Arg Ser	Ile Glu Asp Leu His				
	165	170	175			
Arg Gly Ser Asn Leu Pro Ser Pro Val Gly Asn Ser Val Ser Arg Ser						
	180	185	190			
Gly Arg His Ser Ala Leu Arg Tyr Asn Thr Leu Pro Ser Arg Arg Thr						
	195	200	205			
Leu Lys Asn Ser Arg Leu Val Ser Lys Lys Asp Asp Val His Val Cys						
	210	215	220			
Ile Met Cys Leu Arg Ala Ile Met Asn Tyr Gln Tyr Gly Phe Asn Met						
225	230	235	240			
Val Met Ser His Pro His Ala Val Asn Glu Ile Ala Leu Ser Leu Asn						
	245	250	255			
Asn Lys Asn Pro Arg Thr Lys Ala Leu Val Leu Glu Leu Leu Ala Ala						
	260	265	270			
Val Cys Leu Val Arg Gly Gly His Glu Ile Ile Leu Ser Ala Phe Asp						
	275	280	285			
Asn Phe Lys Glu Val Cys Gly Glu Lys Gln Arg Phe Glu Lys Leu Met						
	290	295	300			
Glu His Phe Arg Asn Glu Asp Asn Asn Ile Asp Phe Met Val Ala Ser						
305	310	315	320			
Met Gln Phe Ile Asn Ile Val Val His Ser Val Glu Asp Met Asn Phe						
	325	330	335			
Arg Val His Leu Gln Tyr Glu Phe Thr Lys Leu Gly Leu Asp Glu Tyr						
	340	345	350			
Leu Asp Lys Leu Lys His Thr Glu Ser Asp Lys Leu Gln Val Gln Ile						
	355	360	365			
Gln Ala Tyr Leu Asp Asn Val Phe Asp Val Gly Ala Leu Leu Glu Asp						
	370	375	380			
Ala Glu Thr Lys Asn Ala Ala						
385	390					

<210> 4095

<211> 253

<212> DNA

<213> Homo sapiens

<400> 4095

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60

aggggtcagat agtgggggggt ggggttcagct ccactgtcca ggtgaggaaa ctgaggctga

120

agagagatca agtagcatcc ccagcgaaat ctgaggcctc tggaggcgcc tgtgcacgtg

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253

<210> 4096

<211> 83

<212> PRT

<213> Homo sapiens

<400> 4096

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Met Gly Gly Gly Glu Gln Ala Ser Ala Gly Arg Val Pro Lys Arg Gln
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Pro Arg Glu Gln Gly Gln Ile Val Gly Gly Gly Phe Ser Ser Thr Val
      20           25           30
Gln Val Arg Lys Leu Arg Leu Lys Arg Asp Gln Val Ala Ser Pro Ala
      35           40           45
Lys Ser Glu Ala Ser Gly Gly Ala Cys Ala Arg Val Ser Gly Ser Val
      50           55           60
Cys Pro Gly Ser Ile Ser Ala Cys Val Cys Leu Ser Arg Gln His Ile
65           70           75           80
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<210> 4097

<211> 1385

<212> DNA

<213> Homo sapiens

<400> 4097

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120
cgtgctgtcc tcaattgttc tacaatgagt gccaaatctg ctatcagcaa ggaaatTTTT
180
gcacctcttg atgaaaggat gctgggagct gtccaagtca agaggaggac aaagaaaaag
240
attcctttct tggcaactgg aggtcaaggc gaatatttaa cttatatctg cctgtcagtg
300
acaaacaaga aacccacaca ggcgtccatc acaaaggcca aacagtttga aggtccaca
360
tcatttggtc ggagatcaca gtggatgctc gagcagcttc gccagggtta tggatatgat
420
cctaattggg attcggcaga gtttgatttg ttgtttgaaa atgcttttga ccagtgggta
480
gccagcacag cgtcagaaaa atgcaccttc ttccagatcc tccaccatac ctgccagagg
540
tacctcacgg acaggaagcc agagtattat aactgccaat ccaaattat gggaggaaac
600
agcatcctcc attcagctgc tgacagcgtg accagcgcag tgcagaaggc aagccaggcc
660
ttgaatgagc gtggagagcg attaggccga gcagaggaga agacagaaga cctgaagaac
720
agcgcaccag agtttgagca aactgcgcac aagcttgcca tgaagcaca atgttgagaa
780
actgcctatc ctggtgactc ttcttaagag aaactgaaga gtttgttcag cagtttttac
840
aagaattcgg gacctccgct tgcttctttt ttccaatat ttggacactt agagtgggtt
900
ttgttttttc ttttcagatg ttaatgtgaa agaaagggtg ttgcattttt acatttcctc
960
aatgatcttg ctaataaatg ctacaatagc atcagcttca ttttgggttt ttgcctctc
1020

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ccactgtgtg tatgtgtgta tatgtatgtt ttgaatatgt tttctttatt aaaaaatatt
 1080
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 1140
 aacatgtatt tttttctctg atattaagca ggaaggcatt ttaatgtggg gacatcagat
 1200
 gttatttttc ctagatgaaa ataaaagtca agcagtgatt agtttcactc actgtcctag
 1260
 ctacacttaa tttgaagatt aaaattctac attgtggaaa acaattgaat ttattgggaa
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 1380
 gttca
 1385

<210> 4098

<211> 258

<212> PRT

<213> Homo sapiens

<400> 4098

Ser	Gly	Ala	Arg	Ser	Pro	Glu	Pro	Arg	Ala	Gly	Gln	Pro	Pro	Gly	Glu
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Glu	Pro	Arg	Ala	Leu	Gly	Arg	Val	Pro	Arg	Thr	Gly	Thr	Ala	Gly	Ala
			20					25					30		
Arg	Ala	Arg	Leu	His	Asp	Ser	Leu	Arg	Ala	Val	Leu	Thr	Cys	Ser	Thr
		35					40					45			
Met	Ser	Ala	Lys	Ser	Ala	Ile	Ser	Lys	Glu	Ile	Phe	Ala	Pro	Leu	Asp
	50					55					60				
Glu	Arg	Met	Leu	Gly	Ala	Val	Gln	Val	Lys	Arg	Arg	Thr	Lys	Lys	Lys
65					70					75					80
Ile	Pro	Phe	Leu	Ala	Thr	Gly	Gly	Gln	Gly	Glu	Tyr	Leu	Thr	Tyr	Ile
			85						90					95	
Cys	Leu	Ser	Val	Thr	Asn	Lys	Lys	Pro	Thr	Gln	Ala	Ser	Ile	Thr	Lys
			100					105					110		
Val	Lys	Gln	Phe	Glu	Gly	Ser	Thr	Ser	Phe	Val	Arg	Arg	Ser	Gln	Trp
		115					120					125			
Met	Leu	Glu	Gln	Leu	Arg	Gln	Val	Asn	Gly	Ile	Asp	Pro	Asn	Gly	Asp
	130					135					140				
Ser	Ala	Glu	Phe	Asp	Leu	Leu	Phe	Glu	Asn	Ala	Phe	Asp	Gln	Trp	Val
145					150					155					160
Ala	Ser	Thr	Ala	Ser	Glu	Lys	Cys	Thr	Phe	Phe	Gln	Ile	Leu	His	His
			165						170					175	
Thr	Cys	Gln	Arg	Tyr	Leu	Thr	Asp	Arg	Lys	Pro	Glu	Phe	Ile	Asn	Cys
			180				185						190		
Gln	Ser	Lys	Ile	Met	Gly	Gly	Asn	Ser	Ile	Leu	His	Ser	Ala	Ala	Asp
	195						200					205			
Ser	Val	Thr	Ser	Ala	Val	Gln	Lys	Ala	Ser	Gln	Ala	Leu	Asn	Glu	Arg
	210					215					220				
Gly	Glu	Arg	Leu	Gly	Arg	Ala	Glu	Glu	Lys	Thr	Glu	Asp	Leu	Lys	Asn
225					230					235					240
Ser	Ala	Gln	Gln	Phe	Ala	Glu	Thr	Ala	His	Lys	Leu	Ala	Met	Lys	His
			245						250					255	

Lys Cys

<210> 4099
<211> 511
<212> DNA
<213> Homo sapiens

<400> 4099
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120
ttaaacaata aaaaattgta taatggaatt ggatcagggg gttcccaaaa ccccttcac
180
tgaggtttgg caattcactg agaaggactc acaggactca gcagatagtc atacttgggg
240
ctttgattta ttacatttaa tacagcaaaa agacacaaag caacatttga gaaaggaaaa
300
ggtgcatgtg tcaaagtctg gaggaagcca ggcacaagct acaggagtca tctcctgtgt
360
agctagcagg atatgcttaa ttccccagc ctcaaatttt gacgacacat gtgcaatggt
420
gtctacctta ccagagtttc attagaggct cagcacccat gttttcgatg gaggctagtc
480
acataggcaa cctctcctct ccttcacgcg t
511

<210> 4100
<211> 100
<212> PRT
<213> Homo sapiens

<400> 4100
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20 25 30
Gly Phe Asp Leu Leu His Leu Ile Gln Gln Lys Asp Thr Lys Gln His
35 40 45
Leu Arg Lys Glu Lys Val His Val Ser Lys Ser Gly Gly Ser Gln Ala
50 55 60
Gln Ala Thr Gly Val Ile Ser Cys Val Ala Ser Arg Ile Cys Leu Ile
65 70 75 80
Pro Pro Ala Ser Asn Phe Asp Asp Thr Cys Ala Met Leu Ser Thr Leu
85 90 95
Pro Glu Phe His
100

<210> 4101
<211> 536
<212> DNA
<213> Homo sapiens

<400> 4101

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 120
 ccaggaaaga tggcacacgg cagacgacga caggaaggac acctgctccc cacccttccc
 180
 gggaccccg ccatgtgcaaa attcgagctg gggctctgag ctgcttggag agaccaggg
 240
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 300
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 360
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 420
 aataactaaa taaataaaca actaaataaa gacatgaagg aatggatgca gagacgtgaa
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<210> 4102

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4102

Met	Cys	Leu	Leu	Ser	Trp	Thr	Arg	Ile	Ala	Val	Trp	Gly	Pro	Ser	Ala
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Arg	Val	Cys	Thr	Arg	Tyr	Lys	Ile	Gln	Glu	Arg	Trp	His	Thr	Ala	Asp
			20					25					30		
Asp	Asp	Arg	Lys	Asp	Thr	Cys	Ser	Pro	Pro	Phe	Pro	Gly	Pro	Arg	His
			35				40					45			
Val	Gln	Asn	Ser	Ser	Trp	Gly	Leu	Gln	Leu	Leu	Gly	Glu	Thr	Gln	Gly
			50			55					60				
Leu	Leu	Leu	His	Ser	Leu	Gln	Gly	Leu	Ser	Arg	Gln	Arg	Pro	Trp	Gly
65					70					75				80	
Gly	Glu	Ala	Pro	Ala	Trp	Ser	Leu	Pro	Ala	Pro	Pro	Met	Gln	Ala	Val
			85					90						95	
Glu	Gly	Arg	Thr	Arg	Arg	Arg	Thr	Arg	Arg						
			100					105							

<210> 4103

<211> 3040

<212> DNA

<213> Homo sapiens

<400> 4103

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 120
 gaggaggaag gcggtgacga gtctgacctg agttcggaat ccagcattaa gaagaaatct
 180
 caagaggaaa ggaaagaccg acagtcacctg gataagccag ccaggaaaag gaggcggaga
 240

agtagaaaga agcccagcgg tgcctcgggt tctgagtcgt ataagtcatc tgcaggaagc
300
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360
gatctccgag tcaaaggaat tctgtcttca caagcagaag ggttggccaa cgggccagat
420
gtgctggaga cagacggcct ccaggaagtg cctctctgca gctgccggat ggaaacaccg
480
aagagtcgag agatcaccac actggccaac aaccagtgcg tggctacaga gagcgtggac
540
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600
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660
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720
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840
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900cgggcagtgc tnngccgggc caccactctc ggaggacgac aagctgcagg 960
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1020
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1080
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1140
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1260
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1320
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1440
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 2160
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 2340
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 2580
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 2700
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 2760
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 2880
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<210> 4104

<211> 978

<212> PRT

<213> Homo sapiens

<400> 4104

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Ser	Glu	Ala	Asp	Arg	Ala	Gln	Lys	Met	Asp	Gly	Glu	Ser	Glu	Glu	Glu
		20						25					30		
Gln	Glu	Ser	Val	Asp	Thr	Gly	Glu	Glu	Glu	Gly	Gly	Asp	Glu	Ser	
		35					40					45			
Asp	Leu	Ser	Ser	Glu	Ser	Ser	Ile	Lys	Lys	Lys	Ser	Gln	Glu	Glu	Arg
	50					55					60				
Lys	Asp	Arg	Gln	Ser	Leu	Asp	Lys	Pro	Ala	Arg	Lys	Arg	Arg	Arg	Arg

65					70					75				80	
Ser	Arg	Lys	Lys	Pro	Ser	Gly	Ala	Leu	Gly	Ser	Glu	Ser	Tyr	Lys	Ser
				85					90					95	
Ser	Ala	Gly	Ser	Ala	Glu	Gln	Thr	Ala	Pro	Gly	Asp	Ser	Thr	Gly	Tyr
			100					105						110	
Met	Glu	Val	Ser	Leu	Asp	Ser	Leu	Asp	Leu	Arg	Val	Lys	Gly	Ile	Leu
		115					120					125			
Ser	Ser	Gln	Ala	Glu	Gly	Leu	Ala	Asn	Gly	Pro	Asp	Val	Leu	Glu	Thr
		130				135					140				
Asp	Gly	Leu	Gln	Glu	Val	Pro	Leu	Cys	Ser	Cys	Arg	Met	Glu	Thr	Pro
145					150					155					160
Lys	Ser	Arg	Glu	Ile	Thr	Thr	Leu	Ala	Asn	Asn	Gln	Cys	Met	Ala	Thr
				165					170					175	
Glu	Ser	Val	Asp	His	Glu	Leu	Gly	Arg	Cys	Thr	Asn	Ser	Val	Val	Lys
		180					185						190		
Tyr	Glu	Leu	Met	Arg	Pro	Ser	Asn	Lys	Ala	Pro	Leu	Leu	Val	Leu	Cys
		195					200					205			
Glu	Asp	His	Arg	Gly	Arg	Met	Val	Lys	His	Gln	Cys	Cys	Pro	Gly	Cys
		210				215					220				
Gly	Tyr	Phe	Cys	Thr	Ala	Gly	Asn	Phe	Met	Glu	Cys	Gln	Pro	Glu	Ser
225					230					235					240
Ser	Ile	Ser	His	Arg	Phe	His	Lys	Asp	Cys	Ala	Ser	Arg	Val	Asn	Asn
			245						250					255	
Ala	Ser	Tyr	Cys	Pro	His	Cys	Gly	Glu	Ser	Ser	Lys	Ala	Lys	Glu	
		260						265					270		
Val	Thr	Ile	Ala	Lys	Ala	Asp	Thr	Thr	Ser	Thr	Val	Thr	Pro	Val	Pro
		275					280						285		
Gly	Gln	Glu	Lys	Gly	Ser	Ala	Xaa	Gly	Gly	Arg	Ala	Asp	Thr	Thr	Thr
		290				295					300				
Gly	Ser	Ala	Xaa	Pro	Gly	His	His	Ser	Arg	Arg	Thr	Thr	Ser	Cys	Arg
305					310					315					320
Val	Gln	Pro	Pro	Thr	Xaa	Pro	Glu	Gly	Phe	Asp	Pro	Thr	Gly	Pro	Ala
			325						330					335	
Gly	Leu	Gly	Arg	Pro	Thr	Pro	Gly	Leu	Ser	Gln	Gly	Pro	Gly	Lys	Glu
		340					345						350		
Thr	Leu	Glu	Ser	Ala	Leu	Ile	Ala	Leu	Asp	Ser	Glu	Lys	Pro	Lys	Lys
		355				360						365			
Leu	Arg	Phe	His	Pro	Lys	Gln	Leu	Tyr	Phe	Ser	Ala	Arg	Gln	Gly	Glu
		370				375					380				
Leu	Gln	Lys	Val	Leu	Leu	Met	Leu	Val	Asp	Gly	Ile	Asp	Pro	Asn	Phe
385					390					395					400
Lys	Met	Glu	His	Gln	Asn	Lys	Arg	Ser	Pro	Leu	His	Ala	Ala	Ala	Glu
			405						410					415	
Ala	Gly	His	Val	Asp	Ile	Cys	His	Met	Leu	Val	Gln	Ala	Gly	Ala	Asn
		420						425					430		
Ile	Asp	Thr	Cys	Ser	Glu	Asp	Gln	Arg	Thr	Pro	Leu	Met	Glu	Ala	Ala
		435					440					445			
Glu	Asn	Asn	His	Leu	Glu	Ala	Val	Lys	Tyr	Leu	Ile	Lys	Ala	Gly	Ala
	450					455					460				
Leu	Val	Asp	Pro	Lys	Asp	Ala	Glu	Gly	Ser	Thr	Cys	Leu	His	Leu	Ala
465					470					475					480
Ala	Lys	Lys	Gly	His	Tyr	Glu	Val	Val	Gln	Tyr	Leu	Leu	Ser	Asn	Gly
			485						490					495	
Arg	Met	Asp	Val	Asn	Cys	Gln	Asp	Asp	Gly	Gly	Trp	Thr	Pro	Met	Ile

3289

930 935 940
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<213> Homo sapiens

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<211> 1637

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4110

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Pro	Ile	Phe	Ser	Leu	Ala	Thr	Pro	Leu	Arg	Ala	Gly	Glu	Glu	Gly	Ser
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His	Ser	Arg	Lys	Ser	Leu	Cys	Arg	Ser	Arg	Glu	Glu	Leu	Arg	Gly	Lys
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<212> PRT

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Ala	Ile	Asn	Arg	His	Arg	Pro	Gln	Leu	Leu	Val	Glu	Arg	Tyr	His	Phe
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Asn	Met	Gly	Leu	Leu	Met	Gly	Glu	Ala	Arg	Ala	Val	Leu	Lys	Trp	Ala
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1320

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<210> 4114
 <211> 389
 <212> PRT
 <213> Homo sapiens

<400> 4114
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 Lys Ala Leu Cys Thr Ala His Glu Lys Phe Cys Phe Trp Pro Asp Ser
 35 40 45
 Pro Ser Pro Asp Arg Phe Gly Met Leu Pro Leu Asp Glu Pro Ala Ile
 50 55 60
 Leu Val Ser Glu Phe Leu Asp Arg Phe Gln Ser Leu Cys His Leu Asp
 65 70 75 80
 Leu Gln Leu Pro Ser Leu Arg Pro Glu Asp Leu Lys Thr Met Cys Leu
 85 90 95
 Thr Glu Asp Lys Ile Ser Leu Leu Leu His Leu Leu Glu Asp Glu Leu
 100 105 110
 Asp His Arg Thr Asp Glu Arg Lys Thr Thr Ile Lys Leu Gly Ser Asp
 115 120 125
 Ile Gln Val His Val Thr Ala Cys Ile Leu Ser Val Cys Gly Trp Ala
 130 135 140
 Cys Ser Ser Ser Leu Glu Ser Met Gln Leu Ser Leu Ile Ala Cys Ser
 145 150 155 160
 Gln Cys Met Arg Lys Val Gly Leu Trp Gly Phe Gln Gln Ile Glu Ser
 165 170 175
 Ser Met Thr Asp Leu Asp Ala Ser Phe Gly Leu Thr Ser Ser Pro Ile
 180 185 190
 Pro Gly Leu Glu Gly Arg Pro Glu Arg Leu Pro Leu Val Pro Glu Ser
 195 200 205
 Pro Arg Arg Met Met Thr Arg Ser Gln Asp Ala Thr Phe Ser Pro Gly

210	215	220
Ser Glu Gln Ala Glu Lys Ser Pro Gly Pro Ile Val Ser Arg Thr Arg		
225	230	235
Ser Trp Asp Ser Ser Ser Pro Val Asp Arg Pro Glu Pro Glu Ala Ala		240
	245	250
Ser Pro Thr Thr Arg Thr Arg Pro Val Thr Arg Ser Met Gly Thr Gly		255
	260	265
Asp Thr Pro Gly Leu Glu Val Pro Ser Ser Xaa Ser Ala Glu Ser Gln		270
	275	280
Ala Ser Ser Leu Cys Ser Ser Ser Ser Ser Asp Thr Ser Ser Arg Ser		285
	290	295
Phe Phe Asp Pro Thr Ser Gln His Arg Asp Trp Cys Pro Trp Val Asn		300
305	310	315
Ile Thr Leu Gly Lys Glu Ser Arg Glu Asn Gly Gly Thr Glu Pro Asp		320
	325	330
Ala Ser Ala Pro Ala Glu Pro Gly Trp Lys Ala Val Leu Thr Ile Leu		335
	340	345
Leu Ala His Lys Gln Ser Ser Gln Pro Ala Glu Thr Asp Ser Met Ser		350
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Leu Ser Glu Lys Ser Arg Lys Val Phe Arg Ile Phe Arg Gln Trp Glu		365
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Ser Leu Cys Ser Cys		380
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<210> 4115

<211> 1056

<212> DNA

<213> Homo sapiens

<400> 4115

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120

accaaattatt gtacagagtg tgccagtagg cttttgcaac tggactgaaa atacctgcct
180

tttctctcca caggggaaag tggaagttga agctgggaaa gaaggtatga agtttgaagc
240

gagcgccttc tcatactatg gcgtgatggc cctgacagcc tctccaggtg aaaataagtc
300

ccctectcgc ccatgtggct tgaatcactc agactctctc agtcgaagcg accggattga
360

cgccgtcaca ccaacactgg ggagcagcaa taaccagctc aattcttcgc tctccaagt
420

ctacatcccc gattactcgg tgcgagccct ttcggatctg cagtttgta agatctcaag
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600

gacagccaac ctgctcaacg aacagaactg tgtgacgcac agtaaggcca accacagcct
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gcacaacgaa ggcgccatct aggcgcgcgt ggctgcaccc gccagggccc gcacccgccc
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 960
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<210> 4116
 <211> 151
 <212> PRT
 <213> Homo sapiens

<400> 4116
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 Asn His Ser Asp Ser Leu Ser Arg Ser Asp Arg Ile Asp Ala Val Thr
 35 40 45
 Pro Thr Leu Gly Ser Ser Asn Asn Gln Leu Asn Ser Ser Leu Leu Gln
 50 55 60
 Val Tyr Ile Pro Asp Tyr Ser Val Arg Ala Leu Ser Asp Leu Gln Phe
 65 70 75 80
 Val Lys Ile Ser Arg Gln Gln Tyr Gln Asn Ala Leu Met Ala Ser Arg
 85 90 95
 Met Asp Lys Thr Pro Gln Ser Ser Asp Ser Glu Asn Thr Lys Ile Glu
 100 105 110
 Leu Thr Leu Thr Glu Leu His Asp Gly Leu Pro Asp Glu Thr Ala Asn
 115 120 125
 Leu Leu Asn Glu Gln Asn Cys Val Thr His Ser Lys Ala Asn His Ser
 130 135 140
 Leu His Asn Glu Gly Ala Ile
 145 150

<210> 4117
 <211> 973
 <212> DNA
 <213> Homo sapiens

<400> 4117
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 240

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 720
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 780
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 840
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 960
 tcccttcacg cgt
 973

<210> 4118

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4118

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His	Leu	Gly	Pro	Gln	Ala	Gln	Pro	Ala	Val	Gln	Ala	His	Asp	Trp	Pro
			20					25					30		
Gly	Cys	Gly	Arg	Trp	Pro	Gln	Pro	Pro	Gly	Gly	Ile	Leu	Glu	Trp	Glu
		35					40					45			
Arg	Cys	Val	Gly	Cys	Pro	Arg	Pro	Ala	Arg	Pro	Ala	Ser	Pro	Ser	Pro
	50					55					60				
Gly	Glu	Ala	Thr	Pro	Pro	Ser	Ser	Gly	Ile	Ser	Ala	Val	Lys	Pro	
65					70				75					80	
Pro	Leu	Arg	Ser	Pro	Arg	Thr	Leu	Pro	Leu	Glu	Leu	Gly	Thr	Gly	Gly
				85				90					95		
Cys	Val	Cys	Ala	Gly	Leu	Gly	Pro	Asn	Thr	Pro	Gly	Cys	Gln	Leu	His
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Pro	Pro	Ala	Val	Leu	Cys	Pro	Gln	Gly	Leu	Gly	Arg	His	Gln	Arg	Leu
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<210> 4119

<211> 649

<212> DNA

<213> Homo sapiens

<400> 4119
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180
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<210> 4120
<211> 100
<212> PRT
<213> Homo sapiens

<400> 4120
His Leu Phe Leu Gln Ser Ser Gly Leu Ser Thr Trp Ile Gly Asn Gln
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Met Leu Ser Leu Ser Ser Leu Pro Pro Trp Ala Val Thr Leu Leu Ala
20 25 30
Cys Ile Leu Val Ser Ile Val Thr Glu Phe Val Ser Asn Pro Ala Thr
35 40 45
Ile Thr Ile Phe Leu Pro Ile Leu Cys Ser Leu Val Ser Asn Ala Glu
50 55 60
Leu Pro Asp Ile Gln Thr Gly Cys Pro Arg Gly Leu Glu Trp Gln Ala
65 70 75 80
Trp Leu Arg Ala Ala Ser Val Ala Val Gly Ser Pro Leu Val Thr Ala
85 90 95
His Ser Leu His
100

<210> 4121
<211> 2490
<212> DNA
<213> Homo sapiens

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<210> 4122

<211> 494

<212> PRT

<213> Homo sapiens

<400> 4122

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Phe	Gly	Leu	Gly	Leu	Gly	Leu	Ile	Glu	Glu	Lys	Gln	Ala	Glu	Ser	Arg
		20						25					30		
Arg	Ala	Val	Ser	Ala	Cys	Gln	Glu	Ile	Gln	Ala	Ile	Phe	Thr	Gln	Lys
		35				40						45			
Ser	Lys	Pro	Gly	Pro	Asp	Pro	Leu	Asp	Thr	Arg	Arg	Leu	Gln	Gly	Phe
	50				55					60					
Arg	Leu	Glu	Glu	Tyr	Leu	Ile	Gly	Gln	Ser	Ile	Gly	Lys	Gly	Cys	Ser
65				70				75						80	
Ala	Ala	Val	Tyr	Glu	Ala	Thr	Met	Pro	Thr	Leu	Pro	Gln	Asn	Leu	Glu
			85				90						95		
Val	Thr	Lys	Ser	Thr	Gly	Leu	Leu	Pro	Gly	Arg	Gly	Pro	Gly	Thr	Ser
		100					105					110			
Ala	Pro	Gly	Glu	Gly	Gln	Glu	Arg	Ala	Pro	Gly	Ala	Pro	Ala	Phe	Pro
	115					120				125					
Leu	Ala	Ile	Lys	Met	Met	Trp	Asn	Ile	Ser	Ala	Gly	Ser	Ser	Ser	Glu
	130				135					140					
Ala	Ile	Leu	Asn	Thr	Met	Ser	Gln	Glu	Leu	Val	Pro	Ala	Ser	Arg	Val


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145          150          155          160
Ala Leu Ala Gly Glu Tyr Gly Ala Val Thr Tyr Arg Lys Ser Lys Arg
          165          170          175
Gly Pro Lys Gln Leu Ala Pro His Pro Asn Ile Ile Arg Val Leu Arg
          180          185          190
Ala Phe Thr Ser Ser Val Pro Leu Leu Pro Gly Ala Leu Val Asp Tyr
          195          200          205
Pro Asp Val Leu Pro Ser Arg Leu His Pro Glu Gly Leu Gly His Gly
          210          215          220
Arg Thr Leu Phe Leu Val Met Lys Asn Tyr Pro Cys Thr Leu Arg Gln
          225          230          235          240
Tyr Leu Cys Val Asn Thr Pro Ser Pro Arg Leu Ala Ala Met Met Leu
          245          250          255
Leu Gln Leu Leu Glu Gly Val Asp His Leu Val Gln Gln Gly Ile Ala
          260          265          270
His Arg Asp Leu Lys Ser Asp Asn Ile Leu Val Glu Leu Asp Pro Asp
          275          280          285
Gly Cys Pro Trp Leu Val Ile Ala Asp Phe Gly Cys Cys Leu Ala Asp
          290          295          300
Glu Ser Ile Gly Leu Gln Leu Pro Phe Ser Ser Trp Tyr Val Asp Arg
          305          310          315          320
Gly Gly Asn Gly Cys Leu Met Ala Pro Glu Val Ser Thr Ala Arg Pro
          325          330          335
Gly Pro Arg Ala Val Ile Asp Tyr Ser Lys Ala Asp Ala Trp Ala Val
          340          345          350
Gly Ala Ile Ala Tyr Glu Ile Phe Gly Leu Val Asn Pro Phe Tyr Gly
          355          360          365
Gln Gly Lys Ala His Leu Glu Ser Arg Ser Tyr Gln Glu Ala Gln Leu
          370          375          380
Pro Ala Leu Pro Glu Ser Val Pro Pro Asp Val Arg Gln Leu Val Arg
          385          390          395          400
Ala Leu Leu Gln Arg Glu Ala Ser Lys Arg Pro Ser Ala Arg Val Ala
          405          410          415
Ala Asn Val Leu His Leu Ser Leu Trp Gly Glu His Ile Leu Ala Leu
          420          425          430
Lys Asn Leu Lys Leu Asp Lys Met Val Gly Trp Leu Leu Gln Gln Ser
          435          440          445
Ala Ala Thr Leu Leu Ala Asn Arg Leu Thr Glu Lys Cys Cys Val Glu
          450          455          460
Thr Lys Met Lys Met Leu Phe Leu Ala Asn Leu Glu Cys Glu Thr Leu
          465          470          475          480
Cys Gln Ala Ala Leu Leu Cys Ser Trp Arg Ala Ala Leu
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<210> 4123

<211> 1095

<212> DNA

<213> Homo sapiens

<400> 4123

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120

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<210> 4124

<211> 155

<212> PRT

<213> Homo sapiens

<400> 4124

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Glu	Glu	Leu	Leu	Ser	Leu	Arg	Phe	Pro	Leu	His	Arg	Ala	Cys	Arg	Asp
			20					25					30		
Gly	Asp	Leu	Ala	Thr	Leu	Cys	Ser	Leu	Leu	Gln	Gln	Thr	Pro	His	Ala
			35				40					45			
His	Leu	Ala	Ser	Glu	Asp	Ser	Phe	Tyr	Gly	Trp	Thr	Pro	Val	His	Trp
			50			55					60				
Ala	Ala	His	Phe	Gly	Lys	Leu	Glu	Cys	Leu	Val	Gln	Leu	Val	Arg	Ala
65					70					75				80	
Gly	Ala	Thr	Leu	Asn	Val	Ser	Thr	Thr	Arg	Tyr	Ala	Gln	Thr	Pro	Ala
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His	Ile	Ala	Ala	Phe	Gly	Gly	His	Pro	Gln	Cys	Leu	Val	Trp	Leu	Ile

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<211> 4711

<212> DNA

<213> Homo sapiens

<400> 4125

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<211> 820

<212> PRT

<213> Homo sapiens

<400> 4126

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Arg	Asn	Ala	Ile	Ala	Ser	Ile	Leu	Arg	Ala	Trp	Leu	Asp	Gln	Cys	Ala	195	200	205	
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<211> 2189

<212> DNA

<213> Homo sapiens

<400> 4127

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<212> PRT

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<400> 4128

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900
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960
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1080
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1140
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1200
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1320
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1380
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1560

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 1620
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 accattgac
 1749

<210> 4130
 <211> 523
 <212> PRT
 <213> Homo sapiens

<400> 4130
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 Val Val Asp Gln Gly Ala Gly Ala Ser Arg Gly Gly Asn Thr Arg Lys
 35 40 45
 Ser Leu Glu Asp Asn Gly Ser Thr Arg Val Thr Pro Ser Val Gln Pro
 50 55 60
 His Leu Gln Pro Ile Arg Asn Met Ser Val Ser Arg Thr Met Glu Asp
 65 70 75 80
 Ser Cys Glu Leu Asp Leu Val Tyr Val Thr Glu Arg Ile Ile Ala Val
 85 90 95
 Ser Phe Pro Ser Thr Ala Asn Glu Glu Asn Phe Arg Ser Asn Leu Arg
 100 105 110
 Glu Val Ala Gln Met Leu Lys Ser Lys His Gly Gly Asn Tyr Leu Leu
 115 120 125
 Phe Asn Leu Ser Glu Arg Arg Pro Asp Ile Thr Lys Leu His Ala Lys
 130 135 140
 Val Leu Glu Phe Gly Trp Pro Asp Leu His Thr Pro Ala Leu Glu Lys
 145 150 155 160
 Ile Cys Ser Ile Cys Lys Ala Met Asp Thr Trp Leu Asn Ala Asp Pro
 165 170 175
 His Asn Val Val Leu His Asn Lys Gly Asn Arg Gly Arg Ile Gly
 180 185 190
 Val Val Ile Ala Ala Tyr Met His Tyr Ser Asn Ile Ser Ala Ser Ala
 195 200 205
 Asp Gln Ala Leu Asp Arg Phe Ala Met Lys Arg Phe Tyr Glu Asp Lys
 210 215 220
 Ile Val Pro Ile Gly Gln Pro Ser Gln Arg Arg Tyr Val His Tyr Phe
 225 230 235 240
 Ser Gly Leu Leu Ser Gly Ser Ile Lys Met Asn Asn Lys Pro Leu Phe
 245 250 255
 Leu His His Val Ile Met His Gly Ile Pro Asn Phe Glu Ser Lys Gly
 260 265 270
 Gly Cys Arg Pro Phe Leu Arg Ile Tyr Gln Ala Met Gln Pro Val Tyr
 275 280 285
 Thr Ser Gly Ile Tyr Asn Ile Pro Gly Asp Ser Gln Thr Ser Val Cys
 290 295 300
 Ile Thr Ile Glu Pro Gly Leu Leu Lys Gly Asp Ile Leu Leu Lys

305 310 315 320
 Cys Tyr His Lys Lys Phe Arg Ser Pro Ala Arg Asp Val Ile Phe Arg
 325 330 335
 Val Gln Phe His Thr Cys Ala Ile His Ala Trp Gly Val Val Phe Gly
 340 345 350
 Lys Glu Asp Leu Asp Asp Ala Phe Lys Asp Asp Arg Phe Pro Glu Tyr
 355 360 365
 Gly Lys Val Glu Phe Val Phe Ser Tyr Gly Pro Glu Lys Ile Gln Gly
 370 375 380
 Met Glu His Leu Glu Asn Gly Pro Ser Val Ser Val Asp Tyr Asn Thr
 385 390 395 400
 Ser Asp Pro Leu Ile Arg Trp Asp Ser Tyr Asp Asn Phe Ser Gly His
 405 410 415
 Arg Asp Asp Gly Met Glu Glu Val Val Gly His Thr Gln Gly Pro Leu
 420 425 430
 Asp Gly Ser Leu Tyr Ala Lys Val Lys Lys Lys Asp Ser Leu His Gly
 435 440 445
 Ser Thr Gly Ala Val Asn Ala Thr Arg Pro Thr Leu Ser Ala Thr Pro
 450 455 460
 Asn His Val Glu His Thr Leu Ser Val Ser Ser Asp Ser Gly Asn Ser
 465 470 475 480
 Thr Ala Ser Thr Lys Thr Asp Lys Thr Asp Glu Pro Val Pro Gly Ala
 485 490 495
 Ser Ser Ala His Ala Ala Arg Thr Val Thr Ile Leu Val Trp Gln Phe
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 Ile Val Gln Asp Val Cys Leu Pro Leu Arg Cys
 515 520

<210> 4131
 <211> 608
 <212> DNA
 <213> Homo sapiens

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 180
 cctgaagatc tggacccggt ttctgaagac ccagagcctg atcctgaaga cctcaacact
 240
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 300
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 360
 gacctcgatc cagatgtgat tggccccgta cccttgattc tcgatacctaa cagcgacacc
 420
 ctcagccccg gcgatccaaa agtggacccc nnatctcttc tggcctcact gcgagcccc
 480
 aggtcttggc caccagcccc gcggtgctcc ccgccccgc cagcccgccc cggcccttct
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cgcacagc
608

<210> 4132
<211> 194
<212> PRT
<213> Homo sapiens

<400> 4132
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Leu Ala Pro Glu Ala Ala Gly Thr Ser Thr Pro Glu Met Arg Arg Ser
20 25 30
Val Leu Val Arg Asn Pro Gly His Lys Gly Leu Arg Pro Val Tyr Glu
35 40 45
Glu Leu Asp Ser Asp Ser Glu Asp Leu Asp Pro Asn Pro Glu Asp Leu
50 55 60
Asp Pro Val Ser Glu Asp Pro Glu Pro Asp Pro Glu Asp Leu Asn Thr
65 70 75 80
Val Pro Glu Asp Val Asp Pro Ser Tyr Glu Asp Leu Glu Pro Val Ser
85 90 95
Glu Asp Leu Asp Pro Asp Ala Glu Ala Pro Gly Ser Glu Pro Gln Asp
100 105 110
Pro Asp Pro Met Ser Ser Ser Phe Asp Leu Asp Pro Asp Val Ile Gly
115 120 125
Pro Val Pro Leu Ile Leu Asp Pro Asn Ser Asp Thr Leu Ser Pro Gly
130 135 140
Asp Pro Lys Val Asp Pro Xaa Ser Pro Leu Ala Ser Leu Arg Ala Pro
145 150 155 160
Arg Ser Trp Pro Pro Ala Pro Arg Cys Ser Pro Pro Pro Ala Arg
165 170 175
Pro Gly Pro Ser Pro Ala Arg Ile Ala Ala Lys Pro Ser Ala Ala Ala
180 185 190
Pro Gly

<210> 4133
<211> 1646
<212> DNA
<213> Homo sapiens

<400> 4133
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120
gaaatgggct gggagacaca gaaaatgggt gccacagtt cctgggatcc ctctggaat
180
cctgggtttc cctcctagga cctgcaagg taccctacgt gcctcctgga accccccccc
240
accccgagg tccaaggaa ccagtttga gaaccaaggc tttaggccaa ggacttcctt
300
gcacaagaag gtgcagatgt acagggatgg ttcagacagt ggcctcaacc tcaatggctt
360

catcctctc ctccagcagg ctgtaggaag catggctctg gcaaggccgc tgcagggggg
420
gggccaacag tttcgccatg cagttgtgca actccagggc tggcccagcc agtgccacct
480
catacttgta gctggtaccc ttggtatcca ggctgcccac gaaggcaaac atatccttcc
540
aactcatctc ctctccttcc tcctcagtgc cattgtggat gtaaacaacg tcaaagaaga
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aatatgggca ctggaacatt ttcttcatgg gctccgtcaa ggagaactgg ggctggcaag
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720
tctctgtgac cggaagctca gttttctgct ggatgaggct gaaaagtcct tccagattga
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840
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900
ttttgtcgat cttgtgtttt gtccgcacga acatctcaat catcttctgg gagacattga
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gggcgttggt tttggagccg ttgaacgact ccagctttgg cagtgcacatt tcctctgaca
1020
ggtccaggca gataatcact ttctctggac agttgaccct tgggtgtccga atttggacct
1080
caggggctgg cgggggcacc tgccaggact tagggccggc tcctgaagtg ttgaggctcc
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1380
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1440
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1500
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1560
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1620
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1646

<210> 4134

<211> 329

<212> PRT

<213> Homo sapiens

<400> 4134

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180
catggatctt gaggaccac gaccaatctt tgactggatg cagatcatcc gcaaacgggc
240
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agtgggtctat gtcggcctgg acgctttatc tgatacagag gtagctgcag cgggtgggcaa
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388

<210> 4136
<211> 123
<212> PRT
<213> Homo sapiens

<400> 4136
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20 25 30
Ser Leu Leu Pro Leu Leu Glu Lys Leu Thr Thr Gly Arg Ile Ala Glu
35 40 45
Leu Leu Ser Pro Asp Tyr Met Asp Leu Glu Asp Pro Arg Pro Ile Phe
50 55 60
Asp Trp Met Gln Ile Ile Arg Lys Arg Ala Val Val Tyr Val Gly Leu
65 70 75 80
Asp Ala Leu Ser Asp Thr Glu Val Ala Ala Val Gly Asn Ser Met
85 90 95
Phe Ser Asp Leu Val Ser Val Ala Gly His Ile Tyr Lys Phe Gly Ile
100 105 110
Asp Asp Gly Leu Pro Gly Ala Thr Gly Gly Lys
115 120

<210> 4137
<211> 2255
<212> DNA
<213> Homo sapiens

<400> 4137
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120
gagacttggg gcgggagacg aggaccaggt tacggcctcc tcgcatgtc ctgcgcctgc
180
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240
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300
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360
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420
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480
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660
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720
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900
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960
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1080
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1380
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1860
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1980
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2040
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2100
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2160

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 2255

<210> 4138
 <211> 353
 <212> PRT
 <213> Homo sapiens

<400> 4138
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 20 25 30
 Asn Val Glu Ala Val Asp Pro Arg Gly Arg Thr Leu Leu His Leu Ala
 35 40 45
 Val Ser Leu Gly His Leu Glu Ser Ala Arg Val Leu Leu Arg His Lys
 50 55 60
 Ala Asp Val Thr Lys Glu Asn Arg Gln Gly Trp Thr Val Leu His Glu
 65 70 75 80
 Ala Val Ser Thr Gly Asp Pro Glu Met Val Tyr Thr Val Leu Gln His
 85 90 95
 Arg Asp Tyr His Asn Thr Ser Met Ala Leu Glu Gly Val Pro Glu Leu
 100 105 110
 Leu Gln Lys Ile Leu Glu Ala Pro Asp Phe Tyr Val Gln Met Lys Trp
 115 120 125
 Glu Phe Thr Ser Trp Val Pro Leu Val Ser Arg Ile Cys Pro Asn Asp
 130 135 140
 Val Cys Arg Ile Trp Lys Ser Gly Ala Lys Leu Arg Val Asp Ile Thr
 145 150 155 160
 Leu Leu Gly Phe Glu Asn Met Ser Trp Ile Arg Gly Arg Arg Ser Phe
 165 170 175
 Ile Phe Lys Gly Glu Asp Asn Trp Ala Glu Leu Met Glu Val Asn His
 180 185 190
 Asp Asp Lys Val Val Thr Thr Glu Arg Phe Asp Leu Ser Gln Glu Met
 195 200 205
 Glu Arg Leu Thr Leu Asp Leu Met Lys Pro Lys Ser Arg Glu Val Glu
 210 215 220
 Arg Arg Leu Thr Ser Pro Val Ile Asn Thr Ser Leu Asp Thr Lys Asn
 225 230 235 240
 Ile Ala Phe Glu Arg Thr Lys Ser Gly Phe Trp Gly Trp Arg Thr Asp
 245 250 255
 Lys Ala Glu Val Val Asn Gly Tyr Glu Ala Lys Val Tyr Thr Val Asn
 260 265 270
 Asn Val Asn Val Ile Thr Lys Ile Arg Thr Glu His Leu Thr Glu Glu
 275 280 285
 Glu Lys Lys Arg Tyr Lys Ala Asp Arg Asn Pro Leu Glu Ser Leu Leu
 290 295 300
 Gly Thr Val Glu His Gln Phe Gly Ala Gln Gly Asp Leu Thr Thr Glu
 305 310 315 320
 Cys Ala Thr Ala Asn Asn Pro Thr Ala Ile Thr Pro Asp Glu Tyr Phe
 325 330 335
 Asn Glu Glu Phe Asp Leu Xaa Arg Gln Gly His Trp Xaa Gly Arg Lys

Ser 340 345 350

<210> 4139
<211> 431
<212> DNA
<213> Homo sapiens

<400> 4139
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120
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180
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240
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300
gttcccatct ccacctctca actggtttgg ggcggttttc ctccatcatt gcctccccgt
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ccaggacacg c
431

<210> 4140
<211> 50
<212> PRT
<213> Homo sapiens

<400> 4140
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Leu Cys Leu Pro Glu Ser Arg Ala Leu Leu Ser Ala Ser Pro Glu Val
20 25 30
Val Val Ala Val Gly Phe Pro Gly Gly Lys Cys Pro Val Pro Val Arg
35 40 45
Val Pro
50

<210> 4141
<211> 1182
<212> DNA
<213> Homo sapiens

<400> 4141
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120
cgaaggagga gccggacact tgtctcccgt ctccgagctg ctccccaccc ctggaggaga
180

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 240
 gccggcacca tgagtgaaca gagtatctgt caggcaagag ctgctgtgat ggtttatgat
 300
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 360
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 420
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 480
 caccagtggc gagatgctag acaggtgtat ggtctcaact ttggcagcaa agaggatgcc
 540
 aatgtcttcg caagtgccat gatgcatgcc ttagaagtgt taaattcaca ggaaacaggg
 600
 ccaacattgc ctagacaaaa ctcaacaact cctgctcaag ttcaaaatgg cccatcccaa
 660
 gaagaattgg aaattcaaag aagacaacta caagaacagc aacggcaaaa ggagctggag
 720
 cgggaaaggc tggagcgaga aagaatggaa agagaaagggt tggagagaga gaggttagaa
 780
 agggaaaggc tggagagggga gcgactggaa caagaacagc tggagagaga gagacaagaa
 840
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 960
 gaacgggaga ggcaagaaag ggagcgacaa gagcagttag aaagggaaca gctggaatgg
 1020
 gagagagagc gcagaatatc aagtgtctgt gcccctgcct ctgttgagac tcctctaaac
 1080
 tctgtgctgg gagactcttc tgcttctgag ccaggcttgc aggcagcctc tcagccggcc
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 1182

<210> 4142

<211> 311

<212> PRT

<213> Homo sapiens

<400> 4142

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			20					25				30			
Ser	Arg	Val	His	Ile	Tyr	His	His	Thr	Gly	Asn	Asn	Thr	Phe	Arg	Val
			35				40					45			
Val	Gly	Arg	Lys	Ile	Gln	Asp	His	Gln	Val	Val	Ile	Asn	Cys	Ala	Ile
			50			55					60				
Pro	Lys	Gly	Leu	Lys	Tyr	Asn	Gln	Ala	Thr	Gln	Thr	Phe	His	Gln	Trp
65					70			75				80			
Arg	Asp	Ala	Arg	Gln	Val	Tyr	Gly	Leu	Asn	Phe	Gly	Ser	Lys	Glu	Asp
			85					90				95			
Ala	Asn	Val	Phe	Ala	Ser	Ala	Met	Met	His	Ala	Leu	Glu	Val	Leu	Asn

	100		105		110										
Ser	Gln	Glu	Thr	Gly	Pro	Thr	Leu	Pro	Arg	Gln	Asn	Ser	Gln	Leu	Pro
	115						120					125			
Ala	Gln	Val	Gln	Asn	Gly	Pro	Ser	Gln	Glu	Glu	Leu	Glu	Ile	Gln	Arg
	130						135					140			
Arg	Gln	Leu	Gln	Glu	Gln	Gln	Arg	Gln	Lys	Glu	Leu	Glu	Arg	Glu	Arg
145					150					155					160
Leu	Glu	Arg	Glu	Arg	Met	Glu	Arg	Glu	Arg	Leu	Glu	Arg	Glu	Arg	Leu
			165						170					175	
Glu	Arg	Glu	Arg	Leu	Glu	Arg	Glu	Arg	Leu	Glu	Gln	Glu	Gln	Leu	Glu
	180							185					190		
Arg	Glu	Arg	Gln	Glu	Arg	Glu	Arg	Gln	Glu	Arg	Leu	Glu	Arg	Gln	Glu
	195						200					205			
Arg	Leu	Glu	Arg	Gln	Glu	Arg	Leu	Glu	Arg	Gln	Glu	Arg	Leu	Asp	Arg
	210					215					220				
Glu	Arg	Glu	Arg	Gln	Glu	Arg	Glu	Arg	Leu	Glu	Arg	Leu	Glu	Arg	Glu
225					230					235					240
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<212> PRT

<213> Homo sapiens

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Ile Pro Asn Gly Arg Asp Gln Gln Leu Gly Val Asp Pro Thr Glu His
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<212> PRT

<213> Homo sapiens

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Val	Ser	Ala	Thr	Gly	Glu	Leu	Leu	Glu	Arg	Thr	Ile	Arg	Ser	Ala	Val	35	40	45	
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Gln	Arg	Arg	Arg	Gln	Ser	Lys	Glu	Gln	Asp	Glu	Val	Arg	His	Gly	Arg	85	90	95	
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<212> DNA

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<213> Homo sapiens

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<212> DNA

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<210> 4162

<211> 859

<212> PRT

<213> Homo sapiens

<400> 4162

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			20					25					30		
Glu	His	Ser	Glu	Asn	Val	His	Ile	Ser	Gly	Val	Ser	Thr	Ala	Cys	Gly
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Glu	Thr	Pro	Glu	Gln	Ile	Arg	Ala	Pro	Ser	Gly	Ile	Ile	Thr	Ser	Pro
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Gly	Trp	Pro	Ser	Glu	Tyr	Pro	Ala	Lys	Ile	Asn	Cys	Ser	Trp	Phe	Ile
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Arg	Ala	Asn	Pro	Gly	Glu	Ile	Ile	Thr	Ile	Ser	Phe	Gln	Asp	Phe	Asp
				85						90				95	
Ile	Gln	Gly	Ser	Arg	Arg	Cys	Asn	Leu	Asp	Trp	Leu	Thr	Ile	Glu	Thr
			100					105					110		
Tyr	Lys	Asn	Ile	Glu	Ser	Tyr	Arg	Ala	Cys	Gly	Ser	Thr	Ile	Pro	Pro
		115						120				125			
Pro	Tyr	Ile	Ser	Ser	Gln	Asp	His	Ile	Trp	Ile	Arg	Phe	His	Ser	Asp
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Asp	Asn	Ile	Ser	Arg	Lys	Gly	Phe	Arg	Leu	Ala	Tyr	Phe	Ser	Gly	Lys
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Ser	Glu	Glu	Pro	Asn	Cys	Ala	Cys	Asp	Gln	Phe	Arg	Cys	Gly	Asn	Gly
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Lys	Cys	Ile	Pro	Glu	Ala	Trp	Lys	Cys	Asn	Asn	Met	Asp	Glu	Cys	Gly
			180					185					190		
Asp	Ser	Ser	Asp	Glu	Glu	Ile	Cys	Ala	Lys	Glu	Ala	Asn	Pro	Pro	Thr
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		210				215					220				
Arg	Phe	Thr	Lys	Val	Tyr	Thr	Cys	Leu	Pro	Glu	Ser	Leu	Lys	Cys	Asp
225					230					235					240
Gly	Asn	Ile	Asp	Cys	Leu	Asp	Leu	Gly	Asp	Glu	Ile	Asp	Cys	Asp	Val
				245					250					255	
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3350

690	695	700
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Pro Ala Arg His Gln Leu Thr Ser Ala Leu Ser Arg Met Thr Gln Gly		720
	725	730
Leu Arg Trp Val Arg Phe Thr Leu Gly Arg Ser Ser Ser Leu Ser Gln		735
	740	745
Asn Gln Ser Pro Leu Arg Gln Leu Asp Asn Gly Val Ser Gly Arg Glu		750
	755	760
Asp Asp Asp Asp Val Glu Met Leu Ile Pro Ile Ser Asp Gly Ser Ser		765
	770	775
Asp Phe Asp Val Asn Asp Cys Ser Arg Pro Leu Leu Asp Leu Ala Ser		780
785	790	795
Asp Gln Gly Gln Gly Leu Arg Gln Pro Tyr Asn Ala Thr Asn Pro Gly		800
	805	810
Val Arg Pro Ser Asn Arg Asp Gly Pro Cys Glu Arg Cys Gly Ile Val		815
	820	825
His Thr Ala Gln Ile Pro Asp Thr Cys Leu Glu Val Thr Leu Lys Asn		830
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Glu Thr Ser Asp Asp Glu Ala Leu Leu Leu Cys		845
850	855	

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 <211> 568
 <212> DNA
 <213> Homo sapiens

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<210> 4164
 <211> 187
 <212> PRT
 <213> Homo sapiens

<400> 4164

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          20           25           30
Cys Gly Leu Gln Asp Pro Ala Gly Ser Arg Pro Leu Ser Pro Pro Phe
          35           40           45
Ser Arg Leu Arg Ser Glu Gly Ser Lys Ser Val Leu Pro Gln Trp Leu
          50           55           60
Trp Gly Met Lys Gly Ile Pro Val Pro Ser Gly His Pro Gln Ala Asp
65           70           75           80
Gly Arg Arg Ala Leu Val Arg Ala Val Gly His Pro Gln Asp Leu Leu
          85           90           95
Thr Glu Ala Ser Pro Arg Cys Pro Ala Gly Pro Ser Pro Leu Arg Ser
          100          105          110
Thr Gly Arg Lys Pro Pro Gly Pro Pro Arg Gly Gly Asp Leu Ala Ala
          115          120          125
Pro Val Leu Phe Lys Ala Trp Ala Thr Ser Leu Ala Cys Pro Lys Trp
          130          135          140
Gln Ala Leu Arg Arg Ala Arg Met Val Pro Val Val Gln Gly Ser Pro
145          150          155          160
Pro Ala Trp Ala Ala Pro Val Pro Trp Asn Leu Leu Pro Trp Gly Pro
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Trp Thr Cys Arg His Met Ala Ile Glu Leu Gln
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<210> 4165

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<212> DNA

<213> Homo sapiens

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aattctatca gttgaattcc ctggatagtc caagctttgt ggatccctcc accagaacaa
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<210> 4166
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<213> Homo sapiens

<400> 4166
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Arg Arg Thr Gly Gln Tyr Lys Gly Leu Leu Asp Cys Ala Arg Arg Ile
35 40 45
Leu Glu Arg Glu Gly Pro Arg Ala Phe Tyr Arg Gly Tyr Leu Pro Asn
50 55 60
Val Leu Gly Ile Ile Pro Tyr Ala Gly Ile Asp Leu Ala Val Tyr Glu
65 70 75 80
Thr Leu Lys Asn Trp Trp Leu Gln Gln Tyr Ser His Asp Ser Ala Asp
85 90 95
Pro Gly Ile Leu Val Leu Leu Ala Cys Gly Thr Ile Ser Ser Thr Cys
100 105 110
Gly Gln Ile Ala Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg Met Gln
115 120 125
Ala Gln Gly Phe His His Val Ala Gln Ala His Leu Glu Leu Val Gly
130 135 140
Ser Arg Asn Ser Pro Ala Phe Ser Leu Pro Thr Cys Trp Asp Tyr Arg
145 150 155 160
Lys Pro Val Val Met Pro
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<211> 897
<212> DNA
<213> Homo sapiens

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<210> 4168
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 <212> PRT
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<400> 4168
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 35 40 45
 Pro Pro Gly Ile Lys Gln Ser Ser Cys Phe Ser Leu Leu Ser Ser Leu
 50 55 60
 Asp Tyr Arg Tyr Gly Arg Val Glu Ser Val Lys Ile Leu Pro Lys Arg
 65 70 75 80
 Gly Ser Glu Gly Gly Val Ala Ala Phe Val Asp Phe Val Asp Ile Lys
 85 90 95
 Ser Ala Gln Lys Ala His Asn Ser Val Asn Lys Met Gly Asp Arg Asp
 100 105 110
 Leu Arg Thr Asp Tyr Asn Glu Pro Gly Thr Ile Pro Ser Ala Ala Arg
 115 120 125
 Gly Leu Asp Asp Thr Val Ser Ile Ala Ser Arg Ser Arg Glu Val Ser
 130 135 140
 Gly Phe Arg Gly Gly Gly Gly Pro Ala Tyr Gly Pro Pro Pro Ser
 145 150 155 160
 Leu His Ala Arg Glu Gly Arg Tyr Glu Arg Arg Leu Asp Gly Ala Ser
 165 170 175
 Asp Asn Arg Glu Arg Ala Tyr Glu His Ser Ala Tyr Gly His His Glu
 180 185 190
 Arg Gly Thr Gly Gly Phe Asp Arg Thr Arg His Tyr Asp Gln Asp Tyr
 195 200 205
 Tyr Arg Asp Pro Arg Glu Arg Thr Leu Gln His Gly Leu Tyr Tyr Ala
 210 215 220
 Ser Arg Ser Arg Ser Pro Asn Arg Phe Asp Ala His Asp Pro Arg Tyr
 225 230 235 240
 Glu Pro Arg Ala Arg Glu Gln Phe Thr Leu Pro Ser Val Val His Arg
 245 250 255
 Asp Ile Tyr Arg Asp Asp Ile Thr Arg Glu Val Arg Gly Arg Arg Pro

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<210> 4169

<211> 4743

<212> DNA

<213> Homo sapiens

<400> 4169

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1260

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<211> 900

<212> PRT

<213> Homo sapiens

<400> 4170

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Ala	His	Leu	Arg	Ser	His	Gly	Leu	Glu	Pro	Ala	Ala	Pro	Ser	Pro	Arg
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Ser	Ser	Phe	His	Leu	Leu	Arg	Arg	Arg	Asp	Pro	Pro	Phe	Gln	Thr	Pro
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Ala	Asp	Val	Pro	Ala	Asp	Ile	Arg	Leu	Asn	Pro	Arg	Arg	Leu	Pro	Asp

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<212> DNA
<213> Homo sapiens
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 Pro Leu Leu Cys Cys Cys Val Gln Ala Trp His Leu Gln Asp Gly Asp
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<211> 586

<212> PRT

<213> Homo sapiens

<400> 4176

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Asn	Pro	Ser	Ala	Ser	Ile	Asn	Asn	Asp	Tyr	Phe	Glu	Asp	Leu	Lys	Lys
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Tyr	Cys	Phe	His	Arg	Ser	Val	Asn	Arg	Glu	Thr	Lys	Val	Lys	Phe	Val
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<212> DNA
<213> Homo sapiens
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<211> 398

<212> PRT

<213> Homo sapiens

<400> 4178

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65           70           75           80
His Gly Leu Pro Pro Arg Phe Val Met Gln Val Lys Thr Phe Ser Glu
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Arg Phe Asp Gln Pro Leu Glu Ala Ser Thr Trp Leu Lys Asn Phe Lys
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Thr Thr Asn Glu Arg Phe Leu Asn Gln Ile Lys Val Gln Glu Lys Tyr
          195          200          205
Val Trp Asn Lys Arg Glu Leu Thr Glu Lys Gly Ser Pro Leu Gly Glu
          210          215          220
Val Val Glu Gln Gly Ile Thr Arg Val Arg Asn Ala Thr Asp Ala Val
225          230          235          240
Gly Ile Val Leu Lys Glu Leu Lys Arg Gln Ser Ser Leu Gly Met Phe
          245          250          255
His Leu Leu Val Ala Val Asp Gly Ile Asn Ala Leu Trp Gly Arg Thr
          260          265          270
Thr Leu Lys Arg Glu Asp Lys Ser Pro Ile Ala Pro Glu Glu Leu Ala
          275          280          285
Leu Val His Asn Leu Arg Lys Met Met Lys Asn Asp Trp His Gly Gly
          290          295          300
Ala Ile Val Ser Ala Leu Ser Gln Thr Gly Ser Leu Phe Lys Pro Arg
305          310          315          320
Lys Ala Tyr Leu Pro Gln Glu Leu Leu Gly Lys Glu Gly Phe Asp Ala
          325          330          335
Leu Asp Pro Phe Ile Pro Ile Leu Val Ser Asn Tyr Asn Pro Lys Glu
          340          345          350
Phe Glu Ser Cys Ile Gln Tyr Tyr Leu Glu Asn Asn Trp Leu Gln His
          355          360          365
Glu Lys Ala Pro Thr Glu Glu Gly Lys Lys Glu Leu Leu Phe Leu Ser
          370          375          380
Asn Ala Asn Pro Ser Leu Leu Glu Arg His Cys Ala Tyr Leu
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<210> 4179

<211> 2208

<212> DNA

<213> Homo sapiens

<400> 4179

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<210> 4180

<211> 257

<212> PRT

<213> Homo sapiens

<400> 4180

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			20					25					30		
Thr	Asp	Cys	Val	Met	Ile	Ser	Thr	Arg	Leu	Val	Ser	Ser	Val	His	Ala
			35					40					45		
Val	Leu	Ala	Thr	Gly	Ser	Gly	Ile	Val	Ile	Ile	Arg	Ser	Cys	Asp	Asp
			50				55				60				
Val	Ile	Thr	Gly	Arg	His	Trp	Leu	Ala	Arg	Glu	Tyr	Val	Trp	Phe	Leu
65					70					75					80
Ile	Pro	Tyr	Met	Ile	Tyr	Asp	Ser	Tyr	Ala	Met	Tyr	Leu	Cys	Glu	Trp
				85					90					95	
Cys	Arg	Thr	Arg	Asp	Gln	Asn	Arg	Ala	Pro	Ser	Leu	Thr	Leu	Arg	Asn
				100				105					110		
Phe	Leu	Ser	Arg	Asn	Arg	Leu	Met	Ile	Thr	His	His	Ala	Val	Ile	Leu
			115				120					125			
Phe	Val	Leu	Val	Pro	Val	Ala	Gln	Arg	Leu	Arg	Gly	Asp	Leu	Gly	Asp
			130				135				140				
Phe	Phe	Val	Gly	Cys	Ile	Phe	Thr	Ala	Glu	Leu	Ser	Thr	Pro	Phe	Val
145					150					155					160
Ser	Leu	Gly	Arg	Val	Leu	Ile	Gln	Leu	Lys	Gln	Gln	His	Thr	Leu	Leu
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<400> 4183
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180
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240
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360
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420
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480
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720
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780

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 1020
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<210> 4184
 <211> 374
 <212> PRT
 <213> Homo sapiens

<400> 4184

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Arg	Phe	Met	Pro	Gln	Gln	Asn	Ser	Pro	Val	Pro	Ser	Pro	Tyr	Ala	Pro	35	40	45	
Gln	Ser	Pro	Ala	Gly	Tyr	Met	Pro	Tyr	Ser	His	Pro	Ser	Ser	Tyr	Thr	50	55	60	
Thr	His	Pro	Gln	Met	Gln	Gln	Ala	Ser	Val	Ser	Ser	Pro	Ile	Val	Ala	65	70	75	80
Gly	Gly	Leu	Arg	Asn	Ile	His	Asp	Asn	Lys	Val	Ser	Gly	Pro	Leu	Ser	85	90	95	
Gly	Asn	Ser	Ala	Asn	His	His	Ala	Asp	Asn	Pro	Arg	His	Gly	Ser	Ser	100	105	110	
Glu	Asp	Tyr	Leu	His	Met	Val	His	Arg	Leu	Ser	Ser	Asp	Asp	Gly	Asp	115	120	125	
Ser	Ser	Thr	Met	Arg	Asn	Ala	Ala	Ser	Phe	Pro	Leu	Arg	Ser	Pro	Gln	130	135	140	
Pro	Val	Cys	Ser	Pro	Ala	Gly	Ser	Glu	Gly	Thr	Pro	Lys	Gly	Ser	Arg	145	150	155	160
Pro	Pro	Leu	Ile	Leu	Gln	Ser	Gln	Ser	Leu	Pro	Cys	Ser	Ser	Pro	Arg	165	170	175	
Asp	Val	Pro	Pro	Asp	Ile	Leu	Leu	Asp	Ser	Pro	Glu	Arg	Lys	Gln	Lys	180	185	190	
Lys	Gln	Lys	Lys	Met	Lys	Leu	Gly	Lys	Asp	Glu	Lys	Glu	Gln	Ser	Glu	195	200	205	
Lys	Ala	Ala	Met	Tyr	Asp	Ile	Ile	Ser	Ser	Pro	Ser	Lys	Asp	Ser	Thr	210	215	220	
Lys	Leu	Thr	Leu	Arg	Leu	Ser	Arg	Val	Arg	Ser	Ser	Asp	Met	Asp	Gln	225	230	235	240
Gln	Glu	Asp	Met	Leu	Ser	Gly	Met	Glu	Asn	Ser	Asn	Val	Ser	Glu	Asn	245	250	255	
Asp	Ile	Pro	Phe	Asn	Val	Gln	Tyr	Gln	Gly	Gln	Thr	Ser	Lys	Thr	Pro	260	265	270	
Ile	Thr	Pro	Gln	Asp	Val	Asn	Arg	Pro	Leu	Asn	Ala	Ala	Gln	Cys	Leu				

275	280	285
Ser Gln Gln Glu Gln Thr	Ala Phe Leu Pro Ala	Asn Gln Val Pro Val
290	295	300
Leu Gln Gln Asn Thr Ser	Val Ala Thr Lys Gln	Pro Gln Thr Ser Val
305	310	315
Val Gln Asn Gln Gln Gln	Ile Ser Gln Gln Gly	Pro Ile Tyr Asp Glu
325	330	335
Val Glu Leu Asp Ala Leu	Ala Glu Ile Glu Arg	Ile Glu Arg Glu Ser
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Ala Ile Glu Arg Glu Arg	Phe Ser Lys Glu Val	Gln Asp Lys Asp Lys
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<210> 4185

<211> 1481

<212> DNA

<213> Homo sapiens

<400> 4185

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1020

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<210> 4186

<211> 385

<212> PRT

<213> Homo sapiens

<400> 4186

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			20					25					30		
Gln	Gln	Ala	Glu	Lys	Ile	Leu	Lys	Ser	Met	Asp	Lys	Asn	Gly	Thr	Met
		35					40					45			
Thr	Ile	Asp	Trp	Asn	Glu	Trp	Arg	Asp	Tyr	His	Leu	Leu	His	Pro	Val
	50				55						60				
Glu	Asn	Ile	Pro	Glu	Ile	Ile	Leu	Tyr	Trp	Lys	His	Ser	Thr	Ile	Phe
65				70					75					80	
Asp	Val	Gly	Glu	Asn	Leu	Thr	Val	Pro	Asp	Glu	Phe	Thr	Val	Glu	Glu
			85					90					95		
Arg	Gln	Thr	Gly	Met	Trp	Trp	Arg	His	Leu	Val	Ala	Gly	Gly	Gly	Ala
		100					105					110			
Gly	Ala	Val	Ser	Arg	Thr	Cys	Thr	Ala	Pro	Leu	Asp	Arg	Leu	Lys	Val
	115				120						125				
Leu	Met	Gln	Val	His	Ala	Ser	Arg	Ser	Asn	Asn	Met	Gly	Ile	Val	Gly
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Gly	Phe	Thr	Gln	Met	Ile	Arg	Glu	Gly	Gly	Ala	Arg	Ser	Leu	Trp	Arg
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Gly	Asn	Gly	Ile	Asn	Val	Leu	Lys	Ile	Ala	Pro	Glu	Ser	Ala	Ile	Lys
		165					170						175		
Phe	Met	Ala	Tyr	Glu	Gln	Ile	Lys	Arg	Leu	Val	Gly	Ser	Asp	Gln	Glu
	180				185							190			
Thr	Leu	Arg	Ile	His	Glu	Arg	Leu	Val	Ala	Gly	Ser	Leu	Ala	Gly	Ala
	195				200						205				
Ile	Ala	Gln	Ser	Ser	Ile	Tyr	Pro	Met	Glu	Val	Leu	Lys	Thr	Arg	Met
	210				215						220				
Ala	Leu	Arg	Lys	Thr	Gly	Gln	Tyr	Ser	Gly	Met	Leu	Asp	Cys	Ala	Arg
225			230					235						240	
Arg	Ile	Leu	Ala	Arg	Glu	Gly	Val	Ala	Ala	Phe	Tyr	Lys	Gly	Tyr	Val

245 250 255
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 260 265 270
 Tyr Glu Thr Leu Lys Asn Ala Trp Leu Gln His Tyr Ala Val Asn Ser
 275 280 285
 Ala Asp Pro Gly Val Phe Val Leu Leu Ala Cys Gly Thr Met Ser Ser
 290 295 300
 Thr Cys Gly Gln Leu Ala Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg
 305 310 315 320
 Met Gln Ala Gln Ala Ser Ile Glu Gly Ala Pro Glu Val Thr Met Ser
 325 330 335
 Ser Leu Phe Lys His Ile Leu Arg Thr Glu Gly Ala Phe Gly Leu Tyr
 340 345 350
 Arg Gly Leu Ala Pro Asn Phe Met Lys Val Ile Pro Ala Val Ser Ile
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<210> 4187

<211> 1087

<212> DNA

<213> Homo sapiens

<400> 4187

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<210> 4188
 <211> 272
 <212> PRT
 <213> Homo sapiens

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 35 40 45
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 50 55 60
 Ser Phe Glu Pro Val Gly Thr Arg Pro Arg Val Asp Ser Met Ser Ser
 65 70 75 80
 Val Glu Glu Asp Asp Tyr Asp Thr Leu Thr Asp Ile Asp Ser Asp Lys
 85 90 95
 Asn Val Ile Arg Thr Lys Gln Tyr Leu Tyr Val Ala Asp Leu Ala Arg
 100 105 110
 Lys Asp Lys Arg Val Leu Arg Lys Lys Tyr Gln Ile Tyr Phe Trp Asn
 115 120 125
 Ile Ala Thr Ile Ala Val Phe Tyr Ala Leu Pro Val Val Gln Leu Val
 130 135 140
 Ile Thr Tyr Pro Glu Xaa Gly Gly Cys Thr Arg Gly Ser Arg Asp Ile
 145 150 155 160
 Cys Ser Ser Asn Phe Leu Cys Ala His Pro Leu Gly Asn Leu Ser Ala
 165 170 175
 Phe Asn Asn Ile Leu Ser Asn Leu Gly Tyr Ile Leu Leu Gly Leu Leu
 180 185 190
 Phe Leu Leu Ile Ile Leu Gln Arg Glu Ile Asn His Asn Arg Ala Leu
 195 200 205
 Leu Arg Asn Asp Leu Cys Ala Leu Glu Cys Gly Ile Pro Lys His Phe
 210 215 220
 Gly Leu Phe Tyr Ala Met Gly Thr Ala Leu Met Met Glu Gly Leu Leu
 225 230 235 240
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<210> 4189
 <211> 1570

<212> DNA

<213> Homo sapiens

<400> 4189

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Ser	Asp	Thr	Pro	Tyr	Asp	Ser	Ser	Ala	Ser	Tyr	Glu	Lys	Glu	Asn	Glu
		290				295					300				
Met	Met	Lys	Ser	His	Val	Met	Asp	Gln	Ala	Ile	Asn	Asn	Ala	Ile	Asn
305					310					315					320
Tyr	Leu	Gly	Ala	Glu	Ser	Leu	Arg	Pro	Leu	Val	Gln	Thr	Pro	Pro	Gly
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<210> 4195
<211> 1200
<212> DNA
<213> Homo sapiens
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240
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<210> 4196

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4196

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			20					25					30		
Phe	Ala	Thr	Leu	Ala	Leu	Ile	Leu	Leu	Val	Leu	Leu	Glu	Ala	Leu	Ala
			35				40					45			
Gln	Ala	Asp	Thr	Gln	Lys	Met	Val	Glu	Ala	Gln	Arg	Gly	Val	Gly	Pro
			50			55					60				
Arg	Ala	Cys	Tyr	Ser	Ile	Trp	Leu	Leu	Leu	Ala	Pro	Thr	Pro	Pro	Leu
65					70					75					80
Ser	His	Cys	Leu	Gln	Ser	Pro	Gln	Lys	Gln	His	Gln	Val	Cys	Gly	Asp
			85						90					95	
Arg	Arg	Leu	Lys	Ala	Ser	Ser	Thr	Asn	Cys	Pro	Ser	Glu	Lys	Cys	Thr
			100					105						110	
Ala	Trp	Ala	Arg	Tyr	Ser	His	Arg	Met	Asp	Ser	Leu	Gln	Lys	Gln	Asp
			115				120					125			
Leu	Arg	Arg	Pro	Lys	Ile	His	Gly	Ala	Val	Gln	Ala	Ser	Pro	Tyr	Gln
			130			135					140				
Pro	Pro	Thr	Leu	Ala	Ser	Leu	Gln	Arg	Leu	Leu	Trp	Val	Arg	Gln	Ala
145					150					155					160
Ala	Thr	Leu	Asn	His	Ile	Asp	Glu	Val	Trp	Pro	Ser	Leu	Phe	Leu	Gly
			165					170						175	
Asp	Ala	Tyr	Ala	Ala	Arg	Asp	Lys	Ser	Lys	Leu	Ile	Gln	Leu	Gly	Ile
			180				185					190			
Thr	His	Val	Val	Asn	Ala	Ala	Ala	Gly	Lys	Phe	Gln	Val	Asp	Thr	Gly
			195				200					205			
Ala	Lys	Phe	Tyr	Arg	Gly	Met	Ser	Leu	Glu	Tyr	Tyr	Gly	Ile	Glu	Ala
			210			215					220				
Asp	Asp	Asn	Pro	Phe	Phe	Asp	Leu	Ser	Val	Tyr	Phe	Leu	Pro	Val	Ala
225					230					235					240
Arg	Tyr	Ile	Arg	Ala	Ala	Leu	Ser	Val	Pro	Gln	Gly	Arg	Val	Leu	Val

				85					90					95					
Met	Ala	Asp	Tyr	Ser	Asn	Lys	Leu	Tyr	Tyr	Gln	Leu	Glu	Gln	Glu	Thr				
				100					105					110					
Gly	Ile	Gln	Thr	Gly	Tyr	Thr	Arg	Thr	Gly	Ser	Ile	Phe	Leu	Ala	Gln				
		115					120					125							
Thr	Gln	Asp	Arg	Leu	Ile	Ser	Leu	Lys	Arg	Ile	Asn	Ala	Gly	Leu	Lys				
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Tyr	Val	Arg	Val																
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<210> 4199

<211> 1769

<212> DNA

<213> Homo sapiens

<400> 4199

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<211> 186
<212> PRT
<213> Homo sapiens
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			20					25					30		
Lys	Thr	Thr	Phe	Val	Asn	Val	Ile	Ala	Ser	Gly	Gln	Phe	Ser	Glu	Asp
		35					40					45			
Met	Ile	Pro	Thr	Val	Gly	Phe	Asn	Met	Arg	Lys	Val	Thr	Lys	Gly	Asn
	50					55					60				
Val	Thr	Ile	Lys	Ile	Trp	Asp	Ile	Gly	Gly	Gln	Pro	Arg	Phe	Arg	Ser
65					70					75					80
Met	Trp	Glu	Arg	Tyr	Cys	Arg	Gly	Val	Asn	Ala	Ile	Val	Tyr	Met	Ile
				85					90					95	
Asp	Ala	Ala	Asp	Arg	Glu	Lys	Ile	Glu	Ala	Ser	Arg	Asn	Glu	Leu	His
			100					105					110		
Asn	Leu	Leu	Asp	Lys	Pro	Gln	Leu	Gln	Gly	Ile	Pro	Val	Leu	Val	Leu
		115					120					125			
Gly	Asn	Lys	Arg	Asp	Leu	Pro	Gly	Ala	Leu	Asp	Glu	Lys	Glu	Leu	Ile
	130					135					140				
Glu	Lys	Met	Asn	Leu	Ser	Ala	Ile	Gln	Asp	Arg	Glu	Ile	Cys	Cys	Tyr
145					150					155					160
Ser	Ile	Ser	Cys	Lys	Glu	Lys	Asp	Asn	Ile	Asp	Ile	Thr	Leu	Gln	Trp
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Leu	Ile	Gln	His	Ser	Lys	Ser	Arg	Arg	Ser						
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<210> 4201
 <211> 917
 <212> DNA
 <213> Homo sapiens

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<210> 4202
 <211> 243
 <212> PRT
 <213> Homo sapiens

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 Ile Leu Gly Phe Thr Asn Phe Ile Ala His Ala Ile Arg His Cys Tyr
 35 40 45
 Gln Pro Val Gly Gly Gly Gly Ser Pro Ser Asp Phe Tyr Leu Cys Ser
 50 55 60
 Leu Leu Ala Ser Gly Xaa Ala Ala Leu Ala Cys Val Phe Leu Gly Val


```

65          70          75          80
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          85          90          95
Leu Thr Gly Ile Ala Ser Leu Val Leu Leu Gly Leu Trp Asp Tyr Leu
          100          105          110
Asn Glu Ala Ala Ile Thr Thr Phe Ser Val Leu Gly Leu Phe Ser Ser
          115          120          125
Gln Ala Ala Ala Ile Leu Ser Thr Leu Leu Ala Ala Glu Val Ile Pro
          130          135          140
Thr Thr Val Arg Gly Arg Gly Leu Gly Leu Ile Met Ala Leu Gly Ala
145          150          155          160
Leu Gly Gly Leu Ser Gly Pro Ala Gln Arg Leu His Met Gly His Gly
          165          170          175
Ala Phe Leu Gln His Val Val Leu Ala Ala Cys Ala Leu Leu Cys Ile
          180          185          190
Leu Ser Ile Met Leu Leu Pro Glu Thr Lys Arg Lys Leu Leu Pro Glu
          195          200          205
Val Leu Arg Asp Gly Glu Leu Cys Arg Arg Pro Ser Leu Leu Arg Gln
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<210> 4203

<211> 1368

<212> DNA

<213> Homo sapiens

<400> 4203

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720

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<210> 4204
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 Tyr Thr Val Val Pro Phe Val Leu Leu Ser Ile Lys Pro Ser Leu Thr
 35 40 45
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<210> 4205
 <211> 6523
 <212> DNA
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<211> 829

<212> PRT

<213> Homo sapiens

<400> 4206

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<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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Phe	Asp	Ser	Tyr	Ala	Gln	Phe	Glu	Glu	Ser	Met	Ile	Ala	Ala	Lys	Met
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3407

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785	790	795	800	
Ser Lys Ile Leu Phe Val	Arg Ser Asp Ala Ser Arg	Glu Glu Leu Ala		
	805	810	815	
Glu Leu Ala Gln Gln Val	Asn Pro Glu Glu Ile Gln	Leu Gly Glu Asp		
	820	825	830	
Glu Asp Glu Asp Glu Met	Asp Leu Glu Pro Asn Glu	Val Arg Leu Glu		
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 <212> DNA
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Arg Ala Arg Ala Phe Ile Phe Ser Ser Glu Lys Leu Gly Ala Ser Asp	
65 70 75 80	
Pro	

<210> 4213
 <211> 383
 <212> DNA
 <213> Homo sapiens

<400> 4213
 nacgcgtacc tgtgccagcg cgcgcgcttc ttcgcagaga acgagggcct agacgactac
 60
 atggaggcac gcgagggcat gcacctcaag aacgtggact tccgtgagtt catggtggcc
 120
 ttcccggacc cggcccggcc gccctggtac gcctgctcgt cggccttctg ggccgcggcg
 180
 ctgctcacgc tgtcgtggcc gctgcgagtg ctggccgagt accgcacggc ctacgcgcac
 240
 taccacgtgg agaagctggt tggcctggag ggcccgggct cggccagcag cgcaggcggt
 300
 ggccctcagcc ccagcgatga gctgctgccc ccgctcaccc accgcctgcc gcgggtcaac
 360
 acagtagaca gcacggagct cgg
 383

<210> 4214
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 4214
 Xaa Ala Tyr Leu Cys Gln Arg Ala Arg Phe Phe Ala Glu Asn Glu Gly
 1 5 10 15
 Leu Asp Asp Tyr Met Glu Ala Arg Glu Gly Met His Leu Lys Asn Val
 20 25 30
 Asp Phe Arg Glu Phe Met Val Ala Phe Pro Asp Pro Ala Arg Pro Pro
 35 40 45
 Trp Tyr Ala Cys Ser Ser Ala Phe Trp Ala Ala Ala Leu Leu Thr Leu
 50 55 60
 Ser Trp Pro Leu Arg Val Leu Ala Glu Tyr Arg Thr Ala Tyr Ala His
 65 70 75 80
 Tyr His Val Glu Lys Leu Phe Gly Leu Glu Gly Pro Gly Ser Ala Ser
 85 90 95
 Ser Ala Gly Gly Gly Leu Ser Pro Ser Asp Glu Leu Leu Pro Pro Leu
 100 105 110
 Thr His Arg Leu Pro Arg Val Asn Thr Val Asp Ser Thr Glu Leu
 115 120 125

<210> 4215
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 4215
 nggtacctcg gctgaataaaa aattcaaaaa aacagcaatg gacaggaact tgagaagacg
 60
 ctggaagaaa gcaaagaaat ggatatcaaa cgtaaagaaa ataaaggcaa tgatacccct
 120

ttggccctag agagtacaaa cactgaaaag gagacaagcc tggaggaaac aaaaatcggg
 180
 gagatcctga tccagggcctt gacagaagat atgggtgactg ttttaatccg ggccctgcgtg
 240
 agcatgctgg gagtccctgt ggaccagat actttgcatg ccaccctttg tttctgtttg
 300
 agggtcactc gggggcccca attagccatg atgtttgcag aactgaagaa taccgcgatg
 360
 atcttgaatt tgaccagag ctcaggcttc aatgggttta ctccctggt cacccttctc
 420
 ttaagacaca tcattgagga cccctgtacc cttcgtcata ccatggaaaa ggttggtcgc
 480
 tcagcagcta caagtggagc tggtagcact acctctggtg ttgtgtctgg cagcctcggc
 540
 tctcgggaga tcaactacat ccttcgtgtc cttgggccag ccgcatgccg caatccagac
 600
 atattcacag aagtggccaa ctgctgtatc cgcacgccc ttctgcccc tcgaggctca
 660
 ggaactgctt cagatgatga atttgagaat cttagaatta aaggccctaa tgctgtacag
 720
 ctggtgaaga ccaccctttt gaagccctca cctctgctg tcatccctga tactatcaag
 780
 gaagtgatct atgatatgct gaatgctctg gctgcatacc atgctccaga ggaagcagat
 840
 aaatctgatc ctaaacctgg gggtatgacc caagagggtg gccagctcct gcaagacatg
 900
 ggtgatgatg tataccagca gtaccggtca cttacgcgt
 939

<210> 4216

<211> 287

<212> PRT

<213> Homo sapiens

<400> 4216

Met	Asp	Ile	Lys	Arg	Lys	Glu	Asn	Lys	Gly	Asn	Asp	Thr	Pro	Leu	Ala
1				5					10					15	
Leu	Glu	Ser	Thr	Asn	Thr	Glu	Lys	Glu	Thr	Ser	Leu	Glu	Glu	Thr	Lys
			20					25					30		
Ile	Gly	Glu	Ile	Leu	Ile	Gln	Gly	Leu	Thr	Glu	Asp	Met	Val	Thr	Val
		35				40					45				
Leu	Ile	Arg	Ala	Cys	Val	Ser	Met	Leu	Gly	Val	Pro	Val	Asp	Pro	Asp
	50				55					60					
Thr	Leu	His	Ala	Thr	Leu	Cys	Phe	Cys	Leu	Arg	Val	Thr	Arg	Gly	Pro
65					70				75					80	
Gln	Leu	Ala	Met	Met	Phe	Ala	Glu	Leu	Lys	Asn	Thr	Arg	Met	Ile	Leu
			85					90					95		
Asn	Leu	Thr	Gln	Ser	Ser	Gly	Phe	Asn	Gly	Phe	Thr	Pro	Leu	Val	Thr
			100					105					110		
Leu	Leu	Leu	Arg	His	Ile	Ile	Glu	Asp	Pro	Cys	Thr	Leu	Arg	His	Thr
		115					120					125			
Met	Glu	Lys	Val	Val	Arg	Ser	Ala	Ala	Thr	Ser	Gly	Ala	Gly	Ser	Thr
	130						135				140				
Thr	Ser	Gly	Val	Val	Ser	Gly	Ser	Leu	Gly	Ser	Arg	Glu	Ile	Asn	Tyr


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145          150          155          160
Ile Leu Arg Val Leu Gly Pro Ala Ala Cys Arg Asn Pro Asp Ile Phe
          165          170          175
Thr Glu Val Ala Asn Cys Cys Ile Arg Ile Ala Leu Pro Ala Pro Arg
          180          185          190
Gly Ser Gly Thr Ala Ser Asp Asp Glu Phe Glu Asn Leu Arg Ile Lys
          195          200          205
Gly Pro Asn Ala Val Gln Leu Val Lys Thr Thr Pro Leu Lys Pro Ser
          210          215          220
Pro Leu Pro Val Ile Pro Asp Thr Ile Lys Glu Val Ile Tyr Asp Met
225          230          235          240
Leu Asn Ala Leu Ala Ala Tyr His Ala Pro Glu Glu Ala Asp Lys Ser
          245          250          255
Asp Pro Lys Pro Gly Val Met Thr Gln Glu Val Gly Gln Leu Leu Gln
          260          265          270Met Gly Asp Asp
Val Tyr Gln Gln Tyr Arg Ser Leu Thr Arg
          275          280          285

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<210> 4217

<211> 619

<212> DNA

<213> Homo sapiens

<400> 4217

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acacacacac gcacacaaaa ctcagccaca ggctcaccag ggtctctctc aacatgcaca
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catacacaca cacaccctc agtcataggc tcacaagagt ctctcttgtc tctctctcat
120
acatacacac acacacacaa ccagccacag gccacaaaag gtgtctctct ctttgtccct
180
gtctgtctct tcgcactcac acacacacat ctcagccaca ggcccaccag agtctgtctg
240
tctctttgtc tctctcactc tctctcacac acatacacct cagccacagg ccacaaaggg
300
tctctctcct tgtccctggc tctctctctc cgcacactcc cacacacaca catacagctc
360
agccacaggc ccacgagggt gtctctctct ctctctctct ctcacacaca cacacacaca
420
cacacacgcc tgtgcagctc cacaggggcc tggggcagga gacagatctg aatacacata
480
ccaccctgtg ctgtgagtg ccactcccat ccaacaactg agactttctg ttactggggc
540
aagggtttct gccaaactca cttcccttat aatgaatgaa ttatccctca gaaggttcca
600
cagtcctccc ctggcgcg
619

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<210> 4218

<211> 155

<212> PRT

<213> Homo sapiens

<400> 4218

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Met His Thr Tyr Thr His Thr Pro Leu Ser His Arg Leu Thr Arg Val

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      1           5           10           15
Ser Leu Val Ser Leu Ser Tyr Ile His Thr His Thr Gln Pro Ala Thr
      20           25           30
Gly Pro Gln Arg Cys Leu Ser Leu Cys Pro Cys Leu Leu Ser Arg Thr
      35           40           45
His Thr His Thr Ser Gln Pro Gln Ala His Gln Ser Leu Ser Val Ser
      50           55           60
Leu Ser Leu Ser Leu Ser Leu Thr His Ile His Leu Ser His Arg Pro
      65           70           75           80
Thr Arg Val Ser Leu Leu Val Pro Gly Ser Ser Leu Ser His Thr Pro
      85           90           95
Thr His Thr His Thr Ala Gln Pro Gln Ala His Glu Gly Val Ser Leu
      100          105          110
Ser Leu Ser Leu Ser His Thr His Thr His Thr His Thr Pro Val Gln
      115          120          125
Leu His Arg Gly Leu Gly Gln Glu Thr Asp Leu Asn Thr His Thr Thr
      130          135          140
Leu Cys Cys Glu Trp Pro Leu Pro Ser Asn Asn
      145          150          155

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<210> 4219

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4219

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ngcggccgcg cacctgctcc cgtcgcccta cagcaagatc acgccccgcg ggaggcccca
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ccgctgcagc agcggccacg gcagcgacaa cagcagcgtg ctgagcgggg agctcccgcc
120
ggccatgggg aagacggccc tgttctacca cagcggcggc agcagcggct acgagagcgt
180
gatgcgggac agcagaggcca ccggcagcgc gtccctcggcg caggactcca cgagcgagaa
240
cagcagctcc gtgggcggca ggtgccggag cctcaagacc ccgaagaaac gctccaatcc
300
aggttctcag agacggaggc ttatcccagc actatccctg gacacctctt cccctgtgag
360
aaaaccccc aacagcacag gcgtccgctg ggtggatggn nccccttgcg gagcagcccc
420
aggggccttg gggaaccttt gagattaaag tctnatgaaa tcgatgacgt ggagcgcctg
480
cagcggcgac gagggggtgc cagcaaggag gccatgtgct tcaatgcaaa gctgaagatt
540
ctggaacacc gccagcagag gatcgccgag gtccgcgcga agtacgagtg gctgatgaag
600
gagctggagg cgaccaaaca gtatctgatg ctggatccca acaagtggct cagtgaattt
660
gacttggagc aggtttggga gctggattcc ctggagtacc tggaggcact ggagtgtgtg
720
acggagcgcc tggagagccg tgtcaacttc tgcaaggccc atctcatgat gctc
774

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<210> 4220

<211> 258
 <212> PRT
 <213> Homo sapiens

<400> 4220
 Xaa Gly Arg Ala Pro Ala Pro Val Ala Leu Gln Gln Asp His Ala Pro
 1 5 10 15
 Ala Glu Ala Pro Pro Leu Gln Gln Arg Pro Arg Gln Arg Gln Gln Gln
 20 25 30
 Arg Ala Glu Arg Gly Ala Pro Ala Gly His Gly Glu Asp Gly Pro Val
 35 40 45
 Leu Pro Gln Arg Arg Gln Gln Arg Leu Arg Glu Arg Asp Ala Gly Gln
 50 55 60
 Arg Gly His Arg Gln Arg Val Leu Gly Ala Gly Leu His Glu Arg Glu
 65 70 75 80
 Gln Gln Leu Arg Gly Arg Gln Val Pro Glu Pro Gln Asp Pro Glu Glu
 85 90 95
 Thr Leu Gln Ser Arg Phe Ser Glu Thr Glu Ala Tyr Pro Ser Thr Ile
 100 105 110
 Pro Gly His Leu Phe Pro Cys Glu Lys Thr Pro Gln Gln His Arg Arg
 115 120 125
 Pro Leu Gly Gly Trp Xaa Pro Leu Arg Ser Ser Pro Arg Gly Leu Gly
 130 135 140
 Glu Pro Leu Arg Leu Lys Ser Xaa Glu Ile Asp Asp Val Glu Arg Leu
 145 150 155 160
 Gln Arg Arg Arg Gly Gly Ala Ser Lys Glu Ala Met Cys Phe Asn Ala
 165 170 175
 Lys Leu Lys Ile Leu Glu His Arg Gln Gln Arg Ile Ala Glu Val Arg
 180 185 190
 Ala Lys Tyr Glu Trp Leu Met Lys Glu Leu Glu Ala Thr Lys Gln Tyr
 195 200 205
 Leu Met Leu Asp Pro Asn Lys Trp Leu Ser Glu Phe Asp Leu Glu Gln
 210 215 220
 Val Trp Glu Leu Asp Ser Leu Glu Tyr Leu Glu Ala Leu Glu Cys Val
 225 230 235 240
 Thr Glu Arg Leu Glu Ser Arg Val Asn Phe Cys Lys Ala His Leu Met
 245 250 255
 Met Leu

<210> 4221
 <211> 789
 <212> DNA
 <213> Homo sapiens

<400> 4221
 aatgtgaaga ggattaaaga ataaagaaaa aacaaaaaag tcttatacta aaataagaaa
 60
 tcagcccccatt cttggcacag ttctcatgca gaatattgca cccagtgtga actaacgcta
 120
 gaagcttcaa actgtataaa tttaaagtga tttgcatatt ataaaaataa agataaacat
 180
 atacatatatt tacactagtt atggaacagc aatgaacgtc agtcgatccc tctttcacat
 240

ttaacagaac tgaaatctga gtgctctaaa tactgccacc tgtactgtaa ctatggctta
 300
 tatgtgcacg gaaaacaaaa tccctgagaa gccattcgac tttttttttt tttcttttct
 360
 tcaagtagcg cgctccttgg aggatcacag ttctgagggt cagggtgtaa aacatttgc
 420
 ccatgttctc gtccatgctt cccccacca cccctcccc acctcttccc cagtcgtcca
 480
 aaaagcacc tgcaagcacg cgttgtcact caagttcaca gaacacgctg gggtgagtgc
 540
 agagggctctg ccagggtcaa aagatgggtc aggtgttcag atgctctctt ttctccatgg
 600
 aaattccaca gccacaaacg tcaactggtt ctgtgctttt caccaacatt cttcccttaa
 660
 aaattggtgc tcctaaagtc acagtttggg tacagtaaaa atgatggcat aaggaaaaga
 720
 agcactatct ttccactta atttccaag aaagtatgaa gatacttgga acaggggctg
 780
 atcacagtc
 789

<210> 4222
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 4222
 Met Ala Tyr Met Cys Thr Glu Asn Lys Ile Pro Glu Lys Pro Phe Asp
 1 5 10 15
 Phe Phe Phe Phe Ser Phe Leu Gln Val Ala Arg Ser Leu Glu Asp His
 20 25 30
 Ser Ser Glu Val Gln Val Val Lys His Leu Leu His Val Leu Val His
 35 40 45
 Ala Ser Pro His His Pro Leu Pro Thr Ser Ser Pro Val Val Gln Lys
 50 55 60
 Ala Pro Cys Lys His Ala Leu Ser Leu Lys Phe Thr Glu His Ala Gly
 65 70 75 80
 Val Ser Ala Glu Gly Leu Pro Gly Ala Lys Asp Gly Pro Gly Val Gln
 85 90 95
 Met Leu Ser Phe Leu His Gly Asn Ser Thr Ala Thr Asn Val Thr Gly
 100 105 110
 Phe Cys Ala Phe His Gln His Ser Ser Leu Lys Asn Trp Cys Ser
 115 120 125

<210> 4223
 <211> 852
 <212> DNA
 <213> Homo sapiens

<400> 4223
 atcctggacc agggctacta ctccggagcga gacacaagca acgtgggtacg gcaagtcctg
 60
 gagggcgtgg cctattttgca ctcaactcaag atcgtgcaca ggaatctcaa gctggagaac
 120

ctggtttact acaaccggct gaagaactcg aagattgtca tcagtgactt ccatctggct
 180
 aagctagaaa atggcctcat caaggagccc tgtgggaccc ccgaagattt tgcccccaa
 240
 ggggaaggcc ggcagcggta tggacgcctt gtggactgct gggccattgg agtcatcatg
 300
 tacatcctgc tttcaggcaa tccacctttc tatgaggagg tggaagaaga tgattatgag
 360
 aaccatgata agaatctctt ccgcaagatc ctggctgggtg actatgagtt tgactctcca
 420
 tattgggatg atatttcgca ggcagccaaa gacctgggtca caaggctgat ggaggtggag
 480
 caagaccagc ggatcactgc agaagaggcc atctcccatg agtggatttc tggcaatgct
 540
 gcttctgata agaacatcaa ggatgggtgc tgtgcccaga ttgaaaagaa ctttgccagg
 600
 gccaaagtga agaaggctgt ccgagtgacc accctcatga aacgggtccg ggcaccagag
 660
 cagtccagca cggctgcagc ccagtcggcc tcagccacag aactgccac ccccggggct
 720
 gcagaccgta gtgccacccc agccacagat ggaagtgcc cccagccac tgatggcagt
 780
 gtcaccccag ccaccgatgg aagcatcact ccagccattg atgggagtgt caccacagcc
 840
 actgacagga gc
 852

<210> 4224

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4224

Ile	Leu	Asp	Gln	Gly	Tyr	Tyr	Ser	Glu	Arg	Asp	Thr	Ser	Asn	Val	Val
1				5					10					15	
Arg	Gln	Val	Leu	Glu	Ala	Val	Ala	Tyr	Leu	His	Ser	Leu	Lys	Ile	Val
			20					25					30		
His	Arg	Asn	Leu	Lys	Leu	Glu	Asn	Leu	Val	Tyr	Tyr	Asn	Arg	Leu	Lys
		35					40					45			
Asn	Ser	Lys	Ile	Val	Ile	Ser	Asp	Phe	His	Leu	Ala	Lys	Leu	Glu	Asn
	50					55					60				
Gly	Leu	Ile	Lys	Glu	Pro	Cys	Gly	Thr	Pro	Glu	Asp	Phe	Ala	Pro	Gln
65					70					75				80	
Gly	Glu	Gly	Arg	Gln	Arg	Tyr	Gly	Arg	Pro	Val	Asp	Cys	Trp	Ala	Ile
			85					90					95		
Gly	Val	Ile	Met	Tyr	Ile	Leu	Leu	Ser	Gly	Asn	Pro	Pro	Phe	Tyr	Glu
			100					105					110		
Glu	Val	Glu	Glu	Asp	Asp	Tyr	Glu	Asn	His	Asp	Lys	Asn	Leu	Phe	Arg
		115					120					125			
Lys	Ile	Leu	Ala	Gly	Asp	Tyr	Glu	Phe	Asp	Ser	Pro	Tyr	Trp	Asp	Asp
	130					135					140				
Ile	Ser	Gln	Ala	Ala	Lys	Asp	Leu	Val	Thr	Arg	Leu	Met	Glu	Val	Glu
145					150					155				160	
Gln	Asp	Gln	Arg	Ile	Thr	Ala	Glu	Glu	Ala	Ile	Ser	His	Glu	Trp	Ile

```

                165                170                175
Ser Gly Asn Ala Ala Ser Asp Lys Asn Ile Lys Asp Gly Val Cys Ala
                180                185                190
Gln Ile Glu Lys Asn Phe Ala Arg Ala Lys Trp Lys Lys Ala Val Arg
                195                200                205
Val Thr Thr Leu Met Lys Arg Leu Arg Ala Pro Glu Gln Ser Ser Thr
                210                215                220
Ala Ala Ala Gln Ser Ala Ser Ala Thr Asp Thr Ala Thr Pro Gly Ala
225                230                235                240
Ala Asp Arg Ser Ala Thr Pro Ala Thr Asp Gly Ser Ala Thr Pro Ala
                245                250                255
Thr Asp Gly Ser Val Thr Pro Ala Thr Asp Gly Ser Ile Thr Pro Ala
                260                265                270
Ile Asp Gly Ser Val Thr Pro Ala Thr Asp Arg Ser
                275                280

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<210> 4225
 <211> 470
 <212> DNA
 <213> Homo sapiens

<400> 4225
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 acgccaacct tccctgaaat atcctatgat gtgtatgttt atacagacat gagacctggg
 120
 gacagggtcc tacagttaac tgcagtcgac gcagacgaag ggtcaaattgg ggagatcaca
 180
 tatgaaatcc ttgttggggc tcaggggagac ttcatcatca ataaaacaac agggccttacc
 240
 accatcgctc caggggtgga aatgatagtc gggcggactt acgcaactccc ggtccaagca
 300
 gcggataatg ctcctcctgc aaagcaaagg actcccatct gcactgtgta tattgaagtg
 360
 cttccaccaa ataatacaag ccctcctcgc ttcccacagc tgatgtatag ccttgaaatt
 420
 agtgaagcca tgagggttgg tgctgtttta ttaaacttac aggcaactga
 470

<210> 4226
 <211> 156
 <212> PRT
 <213> Homo sapiens

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<400> 4226
Xaa Val Gln Glu Ser Glu Pro Val Ile Val Asn Ile Gln Val Met Asp
 1                5                10                15
Ala Asn Asp Asn Thr Pro Thr Phe Pro Glu Ile Ser Tyr Asp Val Tyr
                20                25                30
Val Tyr Thr Asp Met Arg Pro Gly Asp Arg Val Leu Gln Leu Thr Ala
                35                40                45
Val Asp Ala Asp Glu Gly Ser Asn Gly Glu Ile Thr Tyr Glu Ile Leu
                50                55                60
Val Gly Ala Gln Gly Asp Phe Ile Ile Asn Lys Thr Thr Gly Leu Ile

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65		70		75		80									
Thr	Ile	Ala	Pro	Gly	Val	Glu	Met	Ile	Val	Gly	Arg	Thr	Tyr	Ala	Leu
				85					90					95	
Pro	Val	Gln	Ala	Ala	Asp	Asn	Ala	Pro	Pro	Ala	Lys	Gln	Arg	Thr	Pro
			100					105					110		
Ile	Cys	Thr	Val	Tyr	Ile	Glu	Val	Leu	Pro	Pro	Asn	Asn	Gln	Ser	Pro
		115					120					125			
Pro	Arg	Phe	Pro	Gln	Leu	Met	Tyr	Ser	Leu	Glu	Ile	Ser	Glu	Ala	Met
	130					135					140				
Arg	Val	Gly	Ala	Val	Leu	Leu	Asn	Leu	Gln	Ala	Thr				
145					150					155					

<210> 4227

<211> 1199

<212> DNA

<213> Homo sapiens

<400> 4227

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nnaagcttat ggccagtgtt aatttggttat ttcttaaata actttccctt tcatttttaa
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attataaatt taacttctaa catgttttat gggtaaaatt gtactttttt cctttagcga
120
cattcaaatg catcacaatc actttgtgaa attgttcgcc tgagcagaga ccagatgtta
180
caaattcaga acagtacaga gcccgacccc ctgcttgcca ctctagaaaa gcaagaaatt
240
atagagcagc ttctatcaaa tattttccac aaggagaaaa atgagtcagc catagtcagt
300
gcaatccaga tattgctgac tttacttgag acacgacgac caacatttga aggccatata
360
gagatctgcc caccaggcat gagccattca gcttggttcag taaacaagag tgttctagaa
420
gccatcagag gaagacttgg atcttttcat gaactcctgc tggagccacc caagaaaagt
480
gtgatgaaga ccacatgggg tgtgctggat cctcctgtgg ggaatacccg gttgaatgtc
540
attaggttga tatccagcct gcttcaaacc aataccagca gtataaatgg ggaccttatg
600
gagctgaata gcattggagt catattgaac atgttcttca agtatacatg gaataacttt
660
ttgcatacac aagtggaaat ttgtattgca ctgattcttg caagtccttt tgaaaacaca
720
gaaaatgcca caattaccga tcaagactcc actggtgata atttgttatt aaaacatctt
780
ttccaaaaat gtcaattaat agaacgaata cttgaagcct gggaaatgaa tgagaagaaa
840
caggctgagg gaggaagacg gcatgggttac atgggacacc taacgaggat agctaactgt
900
atcgtgcaca gcactgacaa gggccccaac agtgcattag tgcagcagct tatcaaaggt
960
aagttatttg tgaaatttga attacatttt tgttgggttg caggaaggat ttaagggtea
1020
agtagaaatg catgtagcat ttttaatagt gatttgtggg acttctttat atttgcaaaa
1080

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ttatgtatatt gaatgaggtt cttgagaatg tgtttgaaca gggttgtttt ttgggttgta
 1140
 ttttatgttc atgtagttac agaccattcc ataagcattg gcaggcttgg ctggattca
 1199

<210> 4228

<211> 298

<212> PRT

<213> Homo sapiens

<400> 4228

Arg	His	Ser	Asn	Ala	Ser	Gln	Ser	Leu	Cys	Glu	Ile	Val	Arg	Leu	Ser
1				5					10					15	
Arg	Asp	Gln	Met	Leu	Gln	Ile	Gln	Asn	Ser	Thr	Glu	Pro	Asp	Pro	Leu
			20					25					30		
Leu	Ala	Thr	Leu	Glu	Lys	Gln	Glu	Ile	Ile	Glu	Gln	Leu	Leu	Ser	Asn
			35					40					45		
Ile	Phe	His	Lys	Glu	Lys	Asn	Glu	Ser	Ala	Ile	Val	Ser	Ala	Ile	Gln
			50				55					60			
Ile	Leu	Leu	Thr	Leu	Leu	Glu	Thr	Arg	Arg	Pro	Thr	Phe	Glu	Gly	His
65						70				75					80
Ile	Glu	Ile	Cys	Pro	Pro	Gly	Met	Ser	His	Ser	Ala	Cys	Ser	Val	Asn
			85					90						95	
Lys	Ser	Val	Leu	Glu	Ala	Ile	Arg	Gly	Arg	Leu	Gly	Ser	Phe	His	Glu
			100					105					110		
Leu	Leu	Leu	Glu	Pro	Pro	Lys	Lys	Ser	Val	Met	Lys	Thr	Thr	Trp	Gly
			115				120						125		
Val	Leu	Asp	Pro	Pro	Val	Gly	Asn	Thr	Arg	Leu	Asn	Val	Ile	Arg	Leu
			130				135					140			
Ile	Ser	Ser	Leu	Leu	Gln	Thr	Asn	Thr	Ser	Ser	Ile	Asn	Gly	Asp	Leu
145					150					155					160
Met	Glu	Leu	Asn	Ser	Ile	Gly	Val	Ile	Leu	Asn	Met	Phe	Phe	Lys	Tyr
			165					170						175	
Thr	Trp	Asn	Asn	Phe	Leu	His	Thr	Gln	Val	Glu	Ile	Cys	Ile	Ala	Leu
			180					185					190		
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<211> 1612

<212> DNA

<213> Homo sapiens

<400> 4229

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<213> Homo sapiens

<400> 4230

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Leu	Ser	Gln	Gly	Gln	Trp	Met	Gly	Leu	Pro	Asp	Leu	Glu	Val	Lys	Asp
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Thr	Pro	Asp	Pro	Ser	Ser	Cys	Gly	Ala	Gln	Asp	Ser	Ser	Pro	Leu	Phe
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<211> 434

<212> PRT

<213> Homo sapiens

<400> 4232

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<213> Homo sapiens

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	500	505
Lys Ser Leu Arg Ala Ser Phe His Asn Leu Ser Arg Gly Glu Ala Asn		510
	515	520
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Val	Thr	Pro	Val	Lys	Leu	Cys	Arg	Lys	Glu	Leu	Arg	Gln	Ile	Ser	Ala				
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<210> 4235

<211> 971

<212> DNA

<213> Homo sapiens

<400> 4235

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 Ala Thr Gln Val Asn Ala Trp Asp His Thr Leu Ile Glu Asn Gly Glu
 115 120 125
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 Lys Arg Leu Glu Gln Glu Leu Asp Phe Ile Leu Ser Gln Gln Gln Glu
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 <212> DNA
 <213> Homo sapiens

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 Phe Leu Asp Ser Leu Ser Cys Phe Leu Asp Ser Leu Gln Ile Ala Arg
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 Ala Met Gly Val Ala Asp Glu Ala Leu Gly Asn Val Arg Thr Val Arg
 65 70 75 80
 Ala Phe Ala Met Glu Gln Arg Glu Glu Glu Arg Tyr Gly Ala Glu Leu
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<210> 4240

<211> 860

<212> PRT

<213> Homo sapiens

<400> 4240

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Pro	Arg	Pro	Ser	Ile	Lys	Lys
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Asp	Pro	Pro	Gly	Leu	Glu	Ala
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Gly	Pro	Leu	Glu	Asp	Thr	Pro
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Glu	Val	Asp	Pro	Ile	Arg	Lys
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Glu	Glu	Arg	Pro	Pro	Arg	Asp
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Pro	Glu	Ala	Gly	Ser	Asp	Tyr
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Lys	Leu	Ser	Ser	Thr	Asp	Leu
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Ile	Pro	Arg	Glu	Val	Ser	Glu
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Leu	Ile	Arg	Asp	Ser	Leu	Thr
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Arg	Trp	Arg	Asn	Gln	Ala	Leu
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Lys	Ala	Gly	Glu	Ser	Tyr	Thr
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Ser	Phe	Asp	His	Val	Pro	Ala
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Lys	Ala	Val	Ser	Glu	Gln	Ser
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Arg	Thr	Phe	Pro	Leu	Arg	Tyr
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Gly	Ser	Ser	Lys	Pro	Ala	Ser
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Ser	His	Met	Lys	Arg	Arg	Ser
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Asp	Lys	Val	Thr	Arg	Ser	Asp
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Arg	Pro	Arg	Asp	Ser	Ile	Arg
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Pro	Asp	Leu	His	Ser	Pro	Met
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Pro	Ala	Tyr	Ser	Thr	Val	Thr
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Ser	Ala	Thr	Ala	Leu	Pro	Ala

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Ser Pro Ser Leu Ser Ser Tyr Ser Asp Pro Asp Ser Gly His Tyr Cys		480
	485	490
Gln Leu Gln Pro Pro Val Arg Gly Ser Arg Glu Trp Ala Ala Thr Glu		495
	500	505
Thr Ser Ser Gln Gln Ala Arg Ser Tyr Gly Glu Arg Leu Lys Glu Leu		510
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Ser Glu Asn Gly Ala Pro Glu Gly Asp Trp Gly Lys Thr Phe Thr Val		525
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Pro Ile Val Glu Val Thr Ser Ser Phe Asn Pro Ala Thr Phe Gln Ser		540
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Leu Leu Ile Pro Arg Asp Asn Arg Pro Leu Glu Val Gly Leu Leu Arg		560
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Lys Val Lys Glu Leu Leu Ala Glu Val Asp Ala Arg Thr Leu Ala Arg		575
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His Val Thr Lys Val Asp Cys Leu Val Ala Arg Ile Leu Gly Val Thr		590
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Thr Leu Pro His Gly Arg Gln Leu Arg Leu Asp Leu Leu Glu Arg Phe		620
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His Thr Met Ser Ile Met Leu Ala Val Asp Ile Leu Gly Cys Thr Gly		640
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Ala Glu Leu Arg Gly Thr Met Gly Asn Met Phe Ser Phe Ala Ala Val		670
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Met Gly Ala Leu Asp Met Ala Gln Ile Ser Arg Leu Glu Gln Thr Trp		685
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Val Thr Leu Arg Gln Arg His Thr Glu Gly Ala Ile Leu Tyr Glu Lys		700
705	710	715
Lys Leu Lys Pro Phe Leu Lys Ser Leu Asn Glu Gly Lys Glu Gly Pro		720
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Pro Leu Ser Asn Thr Thr Phe Pro His Val Leu Pro Leu Ile Thr Leu		735
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Leu Glu Cys Asp Ser Ala Pro Pro Glu Gly Pro Glu Pro Trp Gly Ser		750
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Thr Glu His Gly Val Glu Val Leu Ala His Leu Glu Ala Ala Arg		765
	770	775
Thr Val Ala His His Gly Gly Leu Tyr His Thr Asn Ala Glu Val Lys		780
785	790	795
Leu Gln Gly Phe Gln Ala Arg Pro Glu Leu Leu Glu Val Phe Ser Thr		800
	805	810
Glu Phe Gln Met Arg Leu Leu Trp Gly Ser Gln Gly Ala Ser Ser Ser		815
	820	825
Gln Ala Arg Arg Tyr Glu Lys Phe Asp Lys Val Leu Thr Ala Leu Ser		830
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 <212> DNA
 <213> Homo sapiens

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<210> 4242
 <211> 159
 <212> PRT
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 Gln Ser Lys Thr Gln Ser Asp Gly Ser Thr Leu Gln Gln Gly Ser Leu
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 Glu Phe Phe Ser Cys Leu Tyr Glu Ile Gln Glu Glu Phe Ile Gln
 65 70 75 80
 Gln Ala Leu Ser His Phe Gln Val Ile Val Val Ser Asn Ile Ala Ser
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 Lys Met Glu His Met Val Ser Ser Phe Cys Leu Lys Arg Cys Arg Ser
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 Ala Gln Val Leu His Leu Tyr Gly Ala Thr Tyr Ser Ala Asp Gly Glu
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 <213> Homo sapiens

<400> 4244

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Ala Glu Phe Glu Arg Thr Tyr Val Asp Glu Val Asn Ser Glu Leu Val
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Asn Ile Tyr Thr Phe Asn His Thr Val Thr Arg Asn Arg Thr Glu Gly
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Val Arg Val Ser Val Asn Val Leu Asn Lys Gln Lys Gly Ala Pro Leu
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Leu Phe Val Val Arg Gln Lys Glu Ala Val Val Ser Phe Gln Val Pro
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Leu Ile Leu Arg Gly Met Phe Gln Arg Lys Tyr Leu Tyr Gln Lys Val
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Glu Arg Thr Leu Cys Gln Pro Pro Thr Lys Asn Glu Ser Glu Ile Gln
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Phe Phe Tyr Val Asp Val Ser Thr Leu Ser Pro Val Asn Thr Thr Tyr
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Gln Leu Arg Val Ser Arg Met Asp Asp Phe Val Leu Arg Thr Gly Glu
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Gln Phe Ser Phe Asn Thr Thr Ala Ala Gln Pro Gln Tyr Phe Lys Tyr
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Glu Phe Pro Glu Gly Val Asp Ser Val Ile Val Lys Val Thr Ser Asn
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Lys Ala Phe Pro Cys Ser Val Ile Ser Ile Gln Asp Val Leu Cys Pro
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Val Tyr Asp Leu Asp Asn Asn Val Ala Phe Ile Gly Met Tyr Gln Thr
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Met Thr Lys Lys Ala Ala Ile Thr Val Gln Arg Lys Asp Phe Pro Ser
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Asn Ser Phe Tyr Val Val Val Val Val Lys Thr Glu Asp Gln Ala Cys
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Gly Gly Ser Leu Pro Phe Tyr Pro Phe Ala Glu Asp Glu Pro Val Asp
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Gln Gly His Arg Gln Lys Thr Leu Ser Val Leu Val Ser Gln Ala Val
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Leu Ser Phe Tyr Leu Leu Thr Val Leu Leu Ala Cys Trp Glu Asn Trp
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Arg Gln Lys Lys Lys Thr Leu Leu Val Ala Ile Asp Arg Ala Cys Pro
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Glu Ser Ala Ser Leu Leu Gly His Pro Arg Val Leu Ala Asp Ser Phe
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Pro Gly Ser Ser Pro Tyr Glu Gly Tyr Asn Tyr Gly Ser Phe Glu Asn
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Arg Thr Lys Gln Tyr Leu Tyr Val Ala Asp Leu Ala Arg Lys Asp Lys		445
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Arg Val Leu Arg Lys Lys Tyr Gln Ile Tyr Phe Trp Asn Ile Ala Thr		460
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Leu Ser Asn Leu Gly Tyr Ile Leu Leu Gly Leu Leu Phe Leu Leu Ile		525
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Ile Leu Gln Arg Glu Ile Asn His Asn Arg Ala Leu Leu Arg Asn Asp		540
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Leu Cys Ala Leu Glu Cys Gly Ile Pro Lys His Phe Gly Leu Phe Tyr		560
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Ala Met Gly Thr Ala Leu Met Met Glu Gly Leu Leu Ser Ala Cys Tyr		575
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His Val Cys Pro Asn Tyr Thr Asn Phe Gln Phe Asp Thr Ser Phe Met		590
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Tyr Met Ile Ala Gly Leu Cys Met Leu Lys Leu Tyr Gln Lys Arg His		605
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Pro Asp Ile Asn Ala Ser Ala Tyr Ser Ala Tyr Ala Cys Leu Ala Ile		620
625	630	635
Val Ile Phe Phe Ser Val Leu Gly Val Val Phe Gly Lys Gly Asn Thr		640
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Ala Phe Trp Ile Val Phe Ser Ile Ile His Ile Ile Ala Thr Leu Leu		655
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Leu Ser Thr Gln Leu Tyr Tyr Met Gly Arg Trp Lys Leu Asp Ser Gly		670
	675	680
Ile Phe Arg Arg Ile Leu His Val Leu Tyr Thr Asp Cys Ile Arg Gln		685
	690	695
Cys Ser Gly Pro Leu Tyr Val Asp Arg Met Val Leu Leu Val Met Gly		700
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Asn Val Ile Asn Trp Ser Leu Ala Ala Tyr Gly Leu Ile Met Arg Pro		720
	725	730
Asn Asp Phe Ala Ser Tyr Leu Leu Ala Ile Gly Ile Cys Asn Leu Leu		735
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Leu Tyr Phe Ala Phe Tyr Ile Ile Met Lys Leu Arg Ser Gly Glu Arg		750
	755	760
Ile Lys Leu Ile Pro Leu Leu Cys Ile Val Cys Thr Ser Val Val Trp		765
	770	775
Gly Phe Ala Leu Phe Phe Phe Gln Gly Leu Ser Thr Trp Gln Lys		780
785	790	795
Thr Pro Ala Glu Ser Arg Glu His Asn Arg Asp Cys Ile Leu Leu Asp		800

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Phe	Phe	Asp	Asp	His	Asp	Ile	Trp	His	Phe	Leu	Ser	Ser	Ile	Ala	Met	
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<210> 4246
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Asn Ala Gly Glu Glu Cys Lys Ser Leu Arg Gly Gln Leu Glu Glu Gln			
35	40	45	
Gly Arg Gln Leu Gln Ala Ala Glu Glu Ala Val Glu Lys Leu Lys Ala			
50	55	60	
Thr Gln Ala Asp Met Gly Glu Lys Leu Ser Cys Thr Ser Asn His Leu			
65	70	75	80
Ala Glu Cys Gln Ala Ala Met Leu Arg Lys Asp Lys Glu Gly Ala Ala			
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Leu Arg Glu Asp Leu Glu Arg Thr Gln Lys Glu Leu Glu Lys Ala Thr			
100	105	110	
Thr Lys Ile Gln Glu Tyr Tyr Asn Lys Leu Cys Gln Glu Val Thr Asn			
115	120	125	
Arg Glu Arg Asn Asp Gln Lys Met Leu Ala Asp Leu Asp Asp Leu Asn			
130	135	140	
Arg Thr Lys Lys Tyr Leu Glu Glu Arg Leu Ile Glu Leu Leu Arg Asp			
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Lys Asp Ala Leu Trp Gln Lys Ser Asp Ala Leu Glu Phe Gln Gln Lys			
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Leu Ser Ala Glu Glu Arg Trp Leu Gly Asp Thr Glu Ala Asn His Cys			
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Leu Asp Cys Lys Arg Glu Phe Ser Trp Met Val Arg Arg His His Cys			
195	200	205	
Arg Ile Cys Gly Arg Ile Phe Cys Tyr Tyr Cys Cys Asn Asn Tyr Val			
210	215	220	
Leu Ser Lys His Gly Gly Lys Lys Glu Arg Cys Cys Arg Ala Cys Phe			
225	230	235	240
Gln Lys Leu Ser Glu Gly Pro Gly Ser Pro Asp Ser Ser Gly Ser Gly			
245	250	255	
Thr Ser Gln Gly Glu Leu Ser Pro Ala Leu Ser Pro Ala Ser Pro Gly			
260	265	270	
Pro Gln Ala Thr Gly Gly Gln Gly Ala Asn Thr Asp Tyr Arg Pro Pro			
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<211> 5755

<212> DNA

<213> Homo sapiens

<400> 4247

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<400> 4248
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 Ala Pro Ser Pro Leu Pro Leu His Thr His Ala Arg Ser Leu Ala Gly
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 Ala Arg Thr Pro Pro Ala Pro Asp Pro His Leu Gly Gly Arg His Thr
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 Leu Gly Ser Pro Ser Arg Gly Ser Arg Ser Gly Met Glu Ala Ala Arg
 65 70 75 80
 Thr Glu Arg Pro Ala Gly Arg Pro Gly Ala Pro Leu Val Arg Thr Gly
 85 90 95
 Leu Leu Leu Leu Ser Thr Trp Val Leu Ala Gly Ala Glu Ile Thr Trp
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 115 120 125
 Pro Ala Leu Ser Pro Leu Ser Pro Arg Ala Val Ala Ser Gln Trp Pro
 130 135 140
 Glu Glu Leu Ala Ser Ala Arg Arg Ala Ala Val Leu Gly Arg Arg Ala
 145 150 155 160
 Gly Pro Glu Leu Leu Pro Gln Gln Gly Gly Arg Gly Gly Glu Met
 165 170 175
 Gln Val Glu Ala Gly Gly Thr Ser Pro Ala Gly Glu Arg Arg Gly Arg
 180 185 190
 Gly Ile Pro Ala Pro Ala Lys Leu Gly Gly Ala Arg Arg Ser Arg Arg
 195 200 205
 Ala Gln Pro Pro Ile Thr Gln Glu Arg Gly Asp Ala Trp Ala Thr Ala

210	215	220
Pro Ala Asp Gly Ser	Arg Gly Ser Arg Pro	Leu Ala Lys Gly Ser Arg
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Glu Glu Val Lys Ala	Pro Arg Ala Gly Gly	Ser Ala Ala Glu Asp Leu
245	250	255
Arg Leu Pro Ser Thr	Ser Phe Ala Leu Thr	Gly Asp Ser Ala His Asn
260	265	270
Gln Ala Met Val His	Trp Ser Gly His Asn	Ser Ser Val Ile Leu Ile
275	280	285
Leu Thr Lys Leu Tyr	Asp Phe Asn Leu Gly	Ser Val Thr Glu Ser Ser
290	295	300
Leu Trp Arg Ser Thr	Asp Tyr Gly Thr Thr	Tyr Glu Lys Leu Asn Asp
305	310	315
Lys Val Gly Leu Lys	Thr Val Leu Ser Tyr	Leu Tyr Val Asn Pro Thr
325	330	335
Asn Lys Arg Lys Ile	Met Leu Leu Ser Asp	Pro Glu Met Glu Ser Ser
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Ile Leu Ile Ser Ser	Asp Glu Gly Ala Thr	Tyr Gln Lys Tyr Arg Leu
355	360	365
Thr Phe Tyr Ile Gln	Ser Leu Leu Phe His	Pro Lys Gln Glu Asp Trp
370	375	380
Val Leu Ala Tyr Ser	Leu Asp Gln Lys Leu	Tyr Ser Ser Met Asp Phe
385	390	395
Gly Arg Arg Trp Gln	Leu Met His Glu Arg	Ile Thr Pro Asn Arg Phe
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Tyr Trp Ser Val Ala	Gly Leu Asp Lys Glu	Ala Asp Leu Val His Met
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Glu Val Arg Thr Thr	Asp Gly Tyr Ala His	Tyr Leu Thr Cys Arg Ile
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Gln Glu Cys Ala Glu	Thr Thr Arg Ser Gly	Pro Phe Ala Arg Ser Ile
450	455	460
Asp Ile Ser Ser Leu	Val Val Gln Asp Glu	Tyr Ile Phe Ile Gln Val
465	470	475
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485	490	495
Phe Ala Gln Ile Lys	Leu Pro Lys Tyr Ser	Leu Pro Lys Asp Met His
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Tyr Phe Thr Leu Ala	Met Glu Asn Ile Lys	Ser Ser Arg Gly Leu Met
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Gly Asn Ile Ile Ile	Glu Leu Tyr Glu Val	Ala Gly Ile Lys Gly Ile
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Phe Leu Ala Asn Lys	Lys Val Asp Asp Gln	Val Lys Thr Tyr Ile Thr
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Tyr Asn Lys Gly Arg	Asp Trp Arg Leu Leu	Gln Ala Pro Asp Val Asp
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Leu Arg Gly Ser Pro	Val His Cys Leu Leu	Pro Phe Cys Ser Leu His
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Leu His Leu Gln Leu	Ser Glu Asn Pro Tyr	Ser Ser Gly Arg Ile Ser
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Ser Lys Glu Thr Ala	Pro Gly Leu Val Val	Ala Thr Gly Asn Ile Gly

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	690					695				700						
Val	Arg	His	Leu	Trp	Val	Ser	Phe	Asp	Glu	Gly	His	Ser	Trp	Asp	Lys	
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Tyr	Gly	Phe	Thr	Ser	Val	Pro	Leu	Phe	Val	Asp	Gly	Ala	Leu	Val	Glu	
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Ala	Gly	Met	Glu	Thr	His	Ile	Met	Thr	Val	Phe	Gly	His	Phe	Ser	Leu	
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Arg	Ser	Glu	Trp	Gln	Leu	Val	Lys	Val	Asp	Tyr	Lys	Ser	Ile	Phe	Ser	
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	770					775					780					
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785					790					795					800	
Pro	Gly	Ala	Gln	Cys	Ala	Leu	Gly	Arg	Asp	His	Ser	Gly	Ser	Val	Val	
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Lys Arg Ala Leu Val Lys Val Thr Ser Val Pro Glu Asp Gln Ile Leu		
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Ile Ala Val Phe Pro Gly Leu Pro Thr Ser Ala Glu Leu Phe Ile Leu		
	1125	1130
Pro Pro Lys Asn Leu Thr Glu Arg Arg Lys Gly Asn Glu Gly Asp Leu		
	1140	1145
Glu Gln Ile Val Glu Thr Leu Phe Asn Ala Leu Asn Gln Asn Leu Val		
	1155	1160
Gln Phe Glu Leu Lys Pro Gly Val Gln Val Ile Val Tyr Val Thr Gln		
	1170	1175
Leu Thr Leu Ala Pro Leu Val Asp Ser Ser Ala Gly His Ser Ser Ser		
1185	1190	1195
Ala Met Leu Met Leu Leu Ser Val Val Phe Val Gly Leu Ala Val Phe		
	1205	1210
Leu Ile Tyr Lys Phe Lys Arg Lys Ile Pro Trp Ile Asn Ile Tyr Ala		
	1220	1225
Gln Val Gln His Asp Lys Glu Gln Glu Met Ile Gly Ser Val Ser Gln		
	1235	1240
Ser Glu Asn Ala Pro Lys Ile Thr Leu Ser Asp Phe Thr Glu Pro Glu		
	1250	1255
Glu Leu Leu Asp Lys Glu Leu Asp Thr Arg Val Ile Gly Gly Ile Ala		
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Thr Ile Ala Asn Ser Glu Ser Thr Lys Glu Ile Pro Asn Cys Thr Ser		
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<210> 4249

<211> 553

<212> DNA

<213> Homo sapiens

<400> 4249

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180
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360
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420
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<210> 4250
<211> 164
<212> PRT
<213> Homo sapiens

<400> 4250
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35 40 45
Arg Asn Ala Ser Gly Ile Asn Pro Arg Val Pro Gly Pro Gln Glu Gly
50 55 60
Ser Ile Ile Gly Pro Gln Thr Arg Arg Lys Ser Ser Leu Leu Lys Pro
65 70 75 80
Thr Leu Ile Ser Glu Pro Ala Asp Met Gly Thr Gln Gln Phe Leu Gln
85 90 95
Leu Asn Pro Asn Leu Gln Lys Phe Ser Arg Asp Met Glu Asp Val Lys
100 105 110
Gly Thr Pro Ser Lys Pro Leu Glu Asn Tyr Asn Met Leu Ala Gly Leu
115 120 125
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130 135 140
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Thr Pro Ile Ser

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<211> 1574
<212> DNA
<213> Homo sapiens

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480

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<210> 4252

<211> 352

<212> PRT

<213> Homo sapiens

<400> 4252

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		20						25					30		
Pro	Asp	Ile	Thr	Lys	Arg	Tyr	Leu	Arg	Leu	Thr	Cys	Ala	Pro	Asp	Pro
		35					40					45			
Ser	Thr	Val	Arg	Pro	Val	Ala	Val	Leu	Lys	Lys	Ser	Leu	Cys	Met	Val
	50					55					60				
Lys	Cys	His	Trp	Lys	Glu	Lys	Gln	Asp	Tyr	Ala	Phe	Ala	Cys	Glu	Gln

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Phe	Thr	Val	Glu	Val	Tyr	Glu	Thr	His	Ala	Arg	Ile	Ala	Leu	Glu	Lys
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Gly	Asp	His	Glu	Glu	Phe	Asn	Gln	Cys	Gln	Thr	Gln	Leu	Lys	Ser	Leu
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Tyr	Ala	Glu	Asn	Leu	Pro	Gly	Asn	Val	Gly	Glu	Phe	Thr	Ala	Tyr	Arg
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Leu	Ala	Tyr	Leu	Thr	Arg	Glu	Leu	Lys	Ala	Asp	Pro	Cys	Val	Ala	His
				165					170					175	
Ala	Leu	Ala	Leu	Arg	Thr	Ala	Trp	Ala	Leu	Gly	Asn	Tyr	His	Arg	Phe
			180					185					190		
Phe	Arg	Leu	Tyr	Cys	His	Ala	Pro	Cys	Met	Ser	Gly	Tyr	Leu	Val	Asp
		195					200					205			
Lys	Phe	Ala	Asp	Arg	Glu	Arg	Lys	Val	Ala	Leu	Lys	Ala	Met	Ile	Lys
	210					215					220				
Thr	Tyr	Val	Val	Pro	Ser	Ser	Leu	Leu	Pro	Leu	Leu	Phe	Pro	Ser	Phe
225					230					235					240
Arg	Leu	Ala	Pro	Pro	Leu	Arg	Pro	Ala	Pro	Gly	Arg	Arg	Pro	Pro	Pro
				245					250					255	
Ala	Pro	Asn	Pro	Cys	Pro	Gly	Pro	Cys	Phe	Pro	Ile	Ile	Phe	Leu	His
		260					265						270		
Ser	Ala	Leu	Pro	Ser	Pro	Val	Pro	Leu	Ala	Leu	Leu	Val	Gly	His	Leu
		275					280					285			
Cys	Val	Pro	Gly	His	Ser	Ser	Pro	Ser	Pro	His	Cys	Ser	Gln	Leu	Thr
	290					295					300				
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305					310					315					320
Ser	Leu	Leu	Pro	Gly	Pro	Pro	Ser	Ser	Leu	Leu	Ala	Leu	Gly	Phe	Leu
			325					330					335		
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<210> 4253

<211> 1287

<212> DNA

<213> Homo sapiens

<400> 4253

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<210> 4254

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4254

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			20					25					30		
Pro	Ala	Ser	Ser	Glu	Pro	Met	Pro	Glu	Asp	Ala	Leu	Gly	Gly	Ser	Ala
		35					40					45			
Val	Pro	Val	Arg	Phe	His	Leu	His	Pro	Glu	Gly	Leu	Leu	Trp	Cys	Ser
	50					55					60				
Arg	Cys	Phe	Phe	Ser	His	Gly	Pro	Lys	Gly	Ser	Glu	Pro	Pro	Gly	Arg
65					70				75					80	
Ser	Ala	Gly	Leu	Gln	Gly	Ala	Thr	Glu	Arg	Ser	Gly	Arg	Pro	Ser	Val
			85					90						95	
Gln	Ala	Gln	Ala	Gln	Ala	Cys	Glu	Asn	Leu	Val	Pro	Ala	Thr	Val	Trp
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<210> 4255
<211> 2205
<212> DNA
<213> Homo sapiens

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<210> 4256

<211> 384

<212> PRT

<213> Homo sapiens

<400> 4256

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			20					25				30			
Gly	Val	Leu	Arg	Ile	Tyr	Ser	Gly	Ser	Leu	Met	Gly	Gln	Ala	Leu	Asp
		35					40					45			
Pro	Thr	Arg	Lys	Gln	Trp	Tyr	Leu	His	Ala	Val	Ala	Asn	Pro	Gly	Leu
	50					55				60					
Ile	Ser	Leu	Thr	Gly	Pro	Tyr	Leu	Asp	Val	Gly	Gly	Ala	Gly	Tyr	Val
65				70					75					80	
Val	Thr	Ile	Ser	His	Thr	Ile	His	Ser	Ser	Ser	Thr	Gln	Leu	Ser	Ser
			85					90					95		
Gly	His	Thr	Val	Ala	Val	Met	Gly	Ile	Asp	Phe	Thr	Leu	Arg	Tyr	Phe
		100					105					110			
Tyr	Lys	Val	Leu	Met	Asp	Leu	Leu	Pro	Val	Cys	Asn	Gln	Asp	Gly	Gly
	115					120					125				
Asn	Lys	Ile	Arg	Cys	Phe	Ile	Met	Glu	Asp	Arg	Gly	Tyr	Leu	Val	Ala
	130					135					140				
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				165					170					175	
Pro	Asn	Phe	Val	Lys	Lys	Asn	Leu	Cys	Asn	Ser	Phe	Ser	Asp	Arg	Thr
			180						185				190		
Val	Gln	Arg	Phe	Tyr	Lys	Phe	Asn	Thr	Ser	Leu	Ala	Gly	Asp	Leu	Thr
		195					200					205			
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	210					215					220				
Pro	Gly	Thr	Asn	Ala	Phe	Val	Gly	Ile	Val	Asn	Glu	Thr	Cys	Asp	Ser
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			245						250					255	
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		260						265				270			
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Pro	Ser	Cys	Glu	Val	His	Gln	Glu	Pro	Val	Thr	Tyr	Thr	Ala	Ile	Asp
	290					295				300					
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<212> DNA

<213> Homo sapiens

<400> 4257

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<400> 4258

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Glu Lys Val Leu Leu Ala Trp Ser Gly Gly Pro Ser Ser Ser Ser Met
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<212> PRT

<213> Homo sapiens

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<211> 2422

<212> DNA

<213> Homo sapiens

<400> 4265

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<211> 613

<212> PRT

<213> Homo sapiens

<400> 4266

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Val Gly Tyr Asp Gly Pro Ile Tyr Met Thr His Pro Thr Gln Ala Ile			
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Leu Glu Ile Lys Ala Tyr Tyr Ala Gly His Val Leu Gly Ala Ala Met			
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Phe Gln Ile Lys Val Gly Ser Glu Ser Val Val Tyr Thr Gly Asp Tyr			
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195	200	205	
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<213> Homo sapiens

<400> 4268

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Leu Asn Asn Glu Glu His Glu Tyr Ala Ser Lys Lys Arg Lys Lys Asp
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His Phe Arg Asn Asp Thr Asn Thr Gln Ser Phe Tyr His Glu Lys Trp
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<210> 4270

<211> 1084

<212> PRT

<213> Homo sapiens

<400> 4270

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		20						25					30		
Gln	Arg	Gly	Arg	Val	Leu	Pro	Pro	Pro	Ala	Pro	Leu	Asp	Thr	Thr	Asn
		35					40					45			
Leu	Ala	Gly	Arg	Arg	Thr	Leu	Gln	Gly	Arg	Ala	Lys	Met	Ala	Ser	Val
	50					55					60				
Pro	Val	Tyr	Cys	Leu	Cys	Arg	Leu	Pro	Tyr	Asp	Val	Thr	Arg	Phe	Met
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Ile	Glu	Cys	Asp	Met	Cys	Gln	Asp	Trp	Phe	His	Gly	Ser	Cys	Val	Gly
			85					90						95	
Val	Glu	Glu	Glu	Lys	Ala	Ala	Asp	Ile	Asp	Leu	Tyr	His	Cys	Pro	Asn
			100					105					110		
Cys	Glu	Val	Leu	His	Gly	Pro	Ser	Ile	Met	Lys	Lys	Arg	Arg	Gly	Ser
		115					120					125			
Ser	Lys	Gly	His	Asp	Thr	His	Lys	Gly	Lys	Pro	Val	Lys	Thr	Gly	Ser
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Pro	Thr	Phe	Val	Arg	Glu	Leu	Arg	Ser	Arg	Thr	Phe	Asp	Ser	Ser	Asp
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Glu	Val	Ile	Leu	Lys	Pro	Thr	Gly	Asn	Gln	Leu	Thr	Val	Glu	Phe	Leu
			165					170						175	
Glu	Glu	Asn	Ser	Phe	Ser	Val	Pro	Ile	Leu	Val	Leu	Lys	Lys	Asp	Gly
		180						185					190		
Leu	Gly	Met	Thr	Leu	Pro	Ser	Pro	Ser	Phe	Thr	Val	Arg	Asp	Val	Glu
	195					200					205				
His	Tyr	Val	Gly	Ser	Asp	Lys	Glu	Ile	Asp	Val	Ile	Asp	Val	Thr	Arg
	210					215					220				
Gln	Ala	Asp	Cys	Lys	Met	Lys	Leu	Gly	Asp	Phe	Val	Lys	Tyr	Tyr	Tyr
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705	710	715
Glu Phe Asp Ile Glu Glu Asp Tyr Thr Thr Asp Glu Asp Met Val Glu		
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Gly Val Glu Gly Lys Leu Gly Asn Gly Ser Gly Ala Gly Gly Ile Leu		
740	745	750
Asp Leu Leu Lys Ala Ser Arg Gln Val Gly Gly Pro Asp Tyr Ala Ala		
755	760	765
Leu Thr Glu Ala Pro Ala Ser Pro Ser Thr Gln Glu Ala Ile Gln Gly		
770	775	780
Met Leu Cys Met Ala Asn Leu Gln Ser Ser Ser Ser Ser Pro Ala Thr		
785	790	795
Ser Ser Leu Gln Ala Trp Trp Thr Gly Gly Gln Asp Arg Ser Ser Gly		
805	810	815
Ser Ser Ser Ser Gly Leu Gly Thr Val Ser Asn Ser Pro Ala Ser Gln		
820	825	830
Arg Thr Pro Gly Lys Arg Pro Ile Lys Arg Pro Ala Tyr Trp Arg Thr		
835	840	845
Glu Ser Glu Glu Glu Glu Glu Asn Ala Ser Leu Asp Glu Gln Asp Ser		
850	855	860
Leu Gly Ala Cys Phe Lys Asp Ala Glu Tyr Ile Tyr Pro Ser Leu Glu		
865	870	875
Ser Asp Asp Asp Asp Pro Ala Leu Lys Ser Arg Pro Lys Lys Lys Lys		
885	890	895
Asn Ser Asp Asp Ala Pro Trp Ser Pro Lys Ala Arg Val Thr Pro Thr		
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Leu Pro Lys Gln Asp Arg Pro Val Arg Glu Gly Thr Arg Val Ala Ser		
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Ile Glu Thr Gly Leu Ala Ala Ala Ala Lys Leu Ala Gln Gln Glu		
930	935	940
Leu Gln Lys Ala Gln Lys Lys Lys Tyr Ile Lys Lys Lys Pro Leu Leu		
945	950	955
Lys Glu Val Glu Gln Pro Arg Pro Gln Asp Ser Asn Leu Ser Leu Thr		
965	970	975
Val Pro Ala Pro Thr Val Ala Ala Thr Pro Gln Leu Val Thr Ser Ser		
980	985	990
Ser Pro Leu Pro Pro Pro Glu Pro Lys Gln Glu Ala Leu Ser Gly Ser		
995	1000	1005
Leu Ala Asp His Glu Tyr Thr Ala Arg Pro Asn Ala Phe Gly Met Ala		
1010	1015	1020
Gln Ala Asn Arg Ser Thr Thr Pro Met Ala Pro Gly Val Phe Leu Thr		
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Gln Arg Arg Pro Ser Val Gly Ser Gln Ser Asn Gln Ala Gly Gln Gly		
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Lys Arg Pro Lys Lys Gly Leu Ala Thr Ala Lys Gln Arg Leu Gly Arg		
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<210> 4271

<211> 588

<212> DNA

<213> Homo sapiens

<400> 4271

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 180
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 240
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 360
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 420
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 480
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<210> 4272

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4272

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			20					25					30		
Asn	Asn	Phe	Ser	Glu	Leu	Phe	His	Leu	Leu	Ser	Ser	Arg	Asn	Cys	Lys
		35					40					45			
Thr	Arg	Asn	Leu	Val	Met	Lys	Leu	Leu	Leu	Asn	Met	Ser	Glu	Asn	Pro
	50					55					60				
Thr	Ala	Ala	Arg	Asp	Met	Ile	Asn	Met	Lys	Ala	Leu	Ala	Ala	Leu	Lys
65					70					75				80	
Leu	Ile	Phe	Asn	His	Lys	Glu	Ala	Lys	Ala	Asn	Leu	Val	Ser	Gly	Val
			85						90					95	
Ala	Ile	Phe	Ile	Asn	Ile	Lys	Glu	His	Ile	Arg	Lys	Gly	Ser	Ile	Val
			100					105					110		
Val	Asn	Lys	Tyr	Gly	His	Thr	Thr	Asn	Lys	Ile	Gly	Phe	Cys	Leu	Phe
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<210> 4273

<211> 2081

<212> DNA

<213> Homo sapiens

<400> 4273

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<210> 4274

<211> 235

<212> PRT

<213> Homo sapiens

<400> 4274

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			20					25					30		
Glu	Glu	Ser	Ile	Arg	Ala	His	Val	Met	Ala	Ser	His	His	Ser	Lys	Arg
		35					40					45			
Arg	Gly	Arg	Ala	Ser	Ser	Glu	Ser	Gln	Gly	Leu	Gly	Ala	Gly	Val	Arg
	50					55					60				
Thr	Glu	Xaa	Asp	Val	Glu	Glu	Glu	Ala	Leu	Arg	Arg	Lys	Leu	Glu	Glu
65					70					75				80	
Leu	Thr	Ser	Asn	Val	Ser	Asp	Gln	Glu	Thr	Phe	Val	Arg	Gly	Gly	Gly
			85					90					95		
Ser	Gln	Gly	Arg	Lys	Cys	Arg	Ala	Gln	Gln	Gly	Gln	Ile	Ser	Trp	Ala
		100						105					110		
Ser	Pro	Pro	Gly	Gly	Pro	Gly	Arg	Trp	His	Gly	Cys	Pro	Ser	Asn	Gln
		115					120					125			
Gln	Thr	Gly	Lys	Lys	Pro	Gln	Asp	Pro	Gly	Asp	Pro	Val	Gln	Tyr	Asn
	130					135					140				
Arg	Thr	Thr	Asp	Glu	Glu	Leu	Ser	Glu	Leu	Glu	Asp	Arg	Val	Ala	Val
145				150						155				160	
Thr	Ala	Ser	Glu	Val	Gln	Gln	Ala	Glu	Ser	Glu	Val	Ser	Asp	Ile	Glu
			165					170					175		
Ser	Arg	Ile	Ala	Ala	Leu	Arg	Ala	Ala	Gly	Leu	Thr	Val	Lys	Pro	Ser
		180					185						190		
Gly	Lys	Pro	Arg	Arg	Lys	Ser	Asn	Leu	Pro	Ile	Phe	Leu	Pro	Arg	Val
	195					200						205			
Ala	Gly	Lys	Leu	Gly	Lys	Arg	Pro	Glu	Asp	Pro	Asn	Ala	Asp	Pro	Ser
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Ser	Glu	Ala	Lys	Ala	Met	Ala	Val	Pro	Ile	Phe					

225

230

235

<210> 4275

<211> 874

<212> DNA

<213> Homo sapiens

<400> 4275

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 180
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 780
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<210> 4276

<211> 264

<212> PRT

<213> Homo sapiens

<400> 4276

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 Gly Lys Ser Ser Leu Val Asn Leu Ser Arg Lys Pro Val Ser Ile
 35 40 45
 Val Ser Pro Glu Pro Gly Thr Thr Arg Asp Val Leu Glu Thr Pro Val
 50 55 60
 Asp Leu Ala Gly Phe Pro Val Leu Leu Ser Asp Thr Ala Gly Leu Arg

65					70					75					80
Glu	Gly	Val	Gly	Pro	Val	Glu	Gln	Glu	Gly	Val	Arg	Arg	Ala	Arg	Glu
				85					90					95	
Arg	Leu	Glu	Gln	Ala	Asp	Leu	Ile	Leu	Ala	Met	Leu	Asp	Ala	Ser	Asp
			100					105					110		
Leu	Ala	Ser	Pro	Ser	Ser	Cys	Asn	Phe	Leu	Ala	Thr	Val	Val	Ala	Ser
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Val	Gly	Ala	Gln	Ser	Pro	Ser	Asp	Ser	Ser	Gln	Arg	Leu	Leu	Leu	Val
	130					135					140				
Leu	Asn	Lys	Ser	Asp	Leu	Leu	Ser	Pro	Glu	Gly	Pro	Gly	Pro	Gly	Pro
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Asp	Leu	Pro	Pro	His	Leu	Leu	Leu	Ser	Cys	Leu	Thr	Gly	Glu	Gly	Leu
				165					170					175	
Asp	Gly	Leu	Leu	Glu	Ala	Leu	Arg	Lys	Glu	Leu	Ala	Ala	Val	Cys	Gly
			180					185					190		
Asp	Pro	Ser	Thr	Asp	Pro	Pro	Leu	Leu	Thr	Arg	Ala	Arg	His	Gln	His
		195					200					205			
His	Leu	Gln	Gly	Cys	Leu	Asp	Ala	Leu	Gly	His	Tyr	Lys	Gln	Ser	Lys
	210					215					220				
Asp	Leu	Ala	Leu	Ala	Ala	Glu	Ala	Leu	Arg	Val	Ala	Arg	Gly	His	Leu
225					230					235				240	
Thr	Arg	Leu	Thr	Gly	Gly	Gly	Gly	Thr	Glu	Glu	Ile	Leu	Asp	Ile	Ile
				245					250					255	
Phe	Gln	Asp	Phe	Cys	Val	Gly	Lys								
			260												

<210> 4277

<211> 1070

<212> DNA

<213> Homo sapiens

<400> 4277

cggccgggtcg ggcctccttt tgtttttagga agggcacttc actccccggg cccccacctg
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 cccgcctgcg ccgcccccttt ccgcgggtcc ggagttggcg gggccctgcg ccggaggagg
 120
 aggaccaggc ccgcgggctc agctctcgcc gccagcgggc cgcagcattt ttgaaacgtt
 180
 ggggttggtg gagtggttgg attttccttg gaattgagtg agaaattcag aagactgaag
 240
 cccaggctta ctgtctacct ttcacggagg cctagccgtg agaggacaga agaaggcacg
 300
 tggcgaatca tgacagcgga caaagacaaa gacaaagaca aagagaagga ccgggaccga
 360
 gaccgggacc gagagagaga gaaaagagac aaagcaagag agagtgagaa ttcaaggcca
 420
 cgccggagct gtaccttggg aggaggagcc aaaaattatg ctgagagtga tcacagtga
 480
 gacgaggaca atgacaacaa tagtgccacc gcagaggagt ccacgaagaa gaataagaag
 540
 aaaccaccga aaaaaaagtc tcgttatgaa aggacagata ccggtgagat aacatcctac
 600
 atcactgaag atgatgtggt ctacagacca ggagactgtg tgtatatcga gagtccggagg
 660

ccaaacacac cgtatttcat ctgtagcatt caagacttca aactgggtcca caactcccag
 720
 gcctgttgca gatctccaac tcttgctttg tgtgaccccc cagcatgctc tctgccggtg
 780
 gcattcacagc caccacagca tctttctgaa gccgggagag ggctgtagg gagtaagagg
 840
 gaccatctcc tcatgaacgt caaatgggtac taccgtcaat ctgaggttcc agattctgtg
 900
 tatcagcatt tggttcagga tcgacataat gaaaatgact ctggaagaga acttgtcatt
 960
 acagacccag ttatcaagaa ccgagagctc ttcatttctg attacgttga cacttaccat
 1020
 gctgctgccc ttagagggaa gtgtaacatt ctccattttt ctgacatatt
 1070

<210> 4278
 <211> 253
 <212> PRT
 <213> Homo sapiens

<400> 4278
 Met Thr Ala Asp Lys Asp Lys Asp Lys Asp Lys Glu Lys Asp Arg Asp
 1 5 10 15
 Arg Asp Arg Asp Arg Glu Arg Glu Lys Arg Asp Lys Ala Arg Glu Ser
 20 25 30
 Glu Asn Ser Arg Pro Arg Arg Ser Cys Thr Leu Glu Gly Gly Ala Lys
 35 40 45
 Asn Tyr Ala Glu Ser Asp His Ser Glu Asp Glu Asp Asn Asp Asn Asn
 50 55 60
 Ser Ala Thr Ala Glu Glu Ser Thr Lys Lys Asn Lys Lys Lys Pro Pro
 65 70 75 80
 Lys Lys Lys Ser Arg Tyr Glu Arg Thr Asp Thr Gly Glu Ile Thr Ser
 85 90 95
 Tyr Ile Thr Glu Asp Asp Val Val Tyr Arg Pro Gly Asp Cys Val Tyr
 100 105 110
 Ile Glu Ser Arg Arg Pro Asn Thr Pro Tyr Phe Ile Cys Ser Ile Gln
 115 120 125
 Asp Phe Lys Leu Val His Asn Ser Gln Ala Cys Cys Arg Ser Pro Thr
 130 135 140
 Pro Ala Leu Cys Asp Pro Pro Ala Cys Ser Leu Pro Val Ala Ser Gln
 145 150 155 160
 Pro Pro Gln His Leu Ser Glu Ala Gly Arg Gly Pro Val Gly Ser Lys
 165 170 175
 Arg Asp His Leu Leu Met Asn Val Lys Trp Tyr Tyr Arg Gln Ser Glu
 180 185 190
 Val Pro Asp Ser Val Tyr Gln His Leu Val Gln Asp Arg His Asn Glu
 195 200 205
 Asn Asp Ser Gly Arg Glu Leu Val Ile Thr Asp Pro Val Ile Lys Asn
 210 215 220
 Arg Glu Leu Phe Ile Ser Asp Tyr Val Asp Thr Tyr His Ala Ala Ala
 225 230 235 240
 Leu Arg Gly Lys Cys Asn Ile Leu His Phe Ser Asp Ile
 245 250

<210> 4279
<211> 1963
<212> DNA
<213> Homo sapiens

<400> 4279
cggccgctta cggaaaactc gctgttgga gttctggatg gcacagtcac gatgtacagt
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ctgagcgtac accagcagct gggcaagatg gtgggtgtgt ctgatgatgt caacgagtat
120
gcaatggccc tgagagacac cgaggacaag ctacgtcggc gccccaagag gaggaaggac
180
atccttgtag agttgaccaa gagccagaag gttttctcag aaaagctgga ccacctgagc
240
cgccgtcttg cctgggtcca tgccactgtc tactcccagg agaagatgct ggacatctac
300
tggtctgtgc gcgtctgcct gcggaccatt gagcacggtg atcgcacagg gtctctcttt
360
gccttcatgc ccgagttcta cctgagcgtg gccatcaaca gctacagtgc tctcaagaat
420
tactttggtc ccgtgcacag catggaggag ctcccaggct atgaagagac cctgacccgc
480
ctggctgcca ttctcgccaa acactttgcc gacgcacgca ttgtgggcac tgacatccga
540
gactcactga tgcaggccct ggccagctac gtgtgctacc cacactccct gcgggctgtg
600ccgaggagca gcgtatgcc atggtgagga acctcctggc gccctatgag 660
cagcggccct gggcccagac caactggatc ctggtgcggc tctggagggg ctgtggcttc
720
gggtaccgct atacacggct gccacatctg ctgaaaacca aacttgagga cgccaatttg
780
cccagcctcc agaagccctg cccttccacc ctgctgcagc agcacatggc ggacctccta
840
cagcagggtc ctgatgtggc acccagcttc ctcaacagcg tcctcaatca gctcaactgg
900
gccttctctg aattcattgg catgatccaa gagatccagc aggctgctga gcgcctggag
960
cggaactttg tggacagccg gcagctcaag gtatgtgcca cctgctttga cctctcggtc
1020
agcctgctgc gtgtcttggg gatgactatc acactggtgc ctgagatatt ccttgactgg
1080
accggccta cctctgagat gctgctgcgg cgtcttgac agctgctaaa ccagggtgctg
1140
aaccgggtga cagctgagag gaacctgttt gatcgtgtgg tcacctacg gctgcctggc
1200
ctagagagcg tggaccacta tccattctg gtggcagtga cgggcaccc ggtgcagctc
1260
ctggtgctg gcccagcctc agagagagag caagccacat cagtgtcctt ggcagatccc
1320
tgcttccagc tacgtcaat atgctatctc ctgggacagc cagagccccc agcacctggc
1380
actgctctgc cagcccctga ccggaagcgc ttctccctgc agagctatgc ggattatatc
1440
agtgccgatg agctggccca agtggaaacag atgctggcgc acctgacctc tgcactctgc
1500

caggcagcag ctgcctccct gccaccagt gaggaggacc tctgccccat ctgctatgcc
 1560
 caccocatct ctgctgtgtt ccagccctgt ggccacaagt cctgcaaagc ctgtatcaac
 1620
 cagcacctga tgaacaacaa ggactgcttc ttctgcaaaa ccaccatcgt gtctgtagag
 1680
 gactgggaga agggagccaa tacgagtact acctcctcag ctgcctagcc ctcacagcct
 1740
 gtgccatcct ggaacctcca cctttgaacc cagagccagg ctgggcccta tttatgagct
 1800
 ccctttgccc ttctcctgta tcccacacca ccacatccaa cctccttgcc tgcctgtatc
 1860
 ctcattggtg ggagcccagc catggcccta attgtgcctg agcttgactt tcagtcaggg
 1920
 ccacagtgag cattaaatta ttattccata caaaaaaaaaaaa aaa
 1963

<210> 4280
 <211> 575
 <212> PRT
 <213> Homo sapiens

<400> 4280
 Arg Pro Leu Thr Glu Asn Ser Leu Leu Glu Val Leu Asp Gly Thr Val
 1 5 10 15
 Met Met Tyr Ser Leu Ser Val His Gln Gln Leu Gly Lys Met Val Gly
 20 25 30
 Val Ser Asp Asp Val Asn Glu Tyr Ala Met Ala Leu Arg Asp Thr Glu
 35 40 45
 Asp Lys Leu Arg Arg Cys Pro Lys Arg Arg Lys Asp Ile Leu Ala Glu
 50 55 60
 Leu Thr Lys Ser Gln Lys Val Phe Ser Glu Lys Leu Asp His Leu Ser
 65 70 75 80
 Arg Arg Leu Ala Trp Val His Ala Thr Val Tyr Ser Gln Glu Lys Met
 85 90 95
 Leu Asp Ile Tyr Trp Leu Leu Arg Val Cys Leu Arg Thr Ile Glu His
 100 105 110
 Gly Asp Arg Thr Gly Ser Leu Phe Ala Phe Met Pro Glu Phe Tyr Leu
 115 120 125
 Ser Val Ala Ile Asn Ser Tyr Ser Ala Leu Lys Asn Tyr Phe Gly Pro
 130 135 140
 Val His Ser Met Glu Glu Leu Pro Gly Tyr Glu Glu Thr Leu Thr Arg
 145 150 155 160
 Leu Ala Ala Ile Leu Ala Lys His Phe Ala Asp Ala Arg Ile Val Gly
 165 170 175
 Thr Asp Ile Arg Asp Ser Leu Met Gln Ala Leu Ala Ser Tyr Val Cys
 180 185 190
 Tyr Pro His Ser Leu Arg Ala Val Glu Arg Ile Pro Glu Glu Gln Arg
 195 200 205
 Ile Ala Met Val Arg Asn Leu Leu Ala Pro Tyr Glu Gln Arg Pro Trp
 210 215 220
 Ala Gln Thr Asn Trp Ile Leu Val Arg Leu Trp Arg Gly Cys Gly Phe
 225 230 235 240
 Gly Tyr Arg Tyr Thr Arg Leu Pro His Leu Leu Lys Thr Lys Leu Glu

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<210> 4281
<211> 507
<212> DNA
<213> Homo sapiens
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<400> 4281
acgcgtgaag ggacagagct ggggccttgt caggagcccc acagttggcc aatggggccag
60
atgccccata gtctcagccc acctctcttc tgccatgagt ccctgattc tgtcctttga
120
gctgactctg agaggcagtg ggcttcccgc cagcacctcc ccctatcaca tttgtagggc
180
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tggtttatga ggccggaagt aagcaagcac cccctcatat caacctggca cttcacaccc
 240
 cccatgggta tcagtggggg tgctggctgg ctggcaggca gccagagaca tttcagcagg
 300
 tcaggcatgg atgcagggtg aaatgagaga ggatcagtga gcgcattcat gtcttttgag
 360
 tggcttacag atgagtgggc tccagtctca aatgaggaga acaaataagg aagtaggagc
 420
 tcagggttct tgtgtgtctc ataggcagct gcctatccct gggtgataca gctccctggc
 480
 acacccattc ccaagggcac aggatcc
 507

<210> 4282
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4282
 Met Asn Ala Leu Thr Asp Pro Leu Ser Phe Pro Pro Ala Ser Met Pro
 1 5 10 15
 Asp Leu Leu Lys Cys Leu Trp Leu Pro Ala Ser Gln Pro Ala Pro Pro
 20 25 30
 Leu Ile Thr Met Gly Gly Val Lys Cys Gln Val Asp Met Arg Gly Cys
 35 40 45
 Leu Leu Thr Ser Gly Leu Ile Asn Gln Pro Tyr Lys Cys Asp Arg Gly
 50 55 60
 Arg Cys Trp Arg Glu Ala His Cys Leu Ser Glu Ser Ala Gln Arg Thr
 65 70 75 80
 Glu Ser Gly Asp Ser Trp Gln Lys Arg Gly Gly Leu Arg Leu Trp Gly
 85 90 95
 Ile Trp Pro Ile Gly Gln Leu Trp Gly Ser
 100 105

<210> 4283
 <211> 315
 <212> DNA
 <213> Homo sapiens

<400> 4283
 gaattctcaa ccagaacagc ccagcaggaa aggagccggc atgggggtgcc cctctgcagc
 60
 cgaccgtttt cctagaaggc ctaaccgctc aaacgggcag gggagggggg cgggcggccc
 120
 gggagaaacc gaggccccgc cgggtcccca ccgtgtggcg ccgaccgaaa taactccagt
 180
 ccagctgcaa aaaccctccc gaaaacccaa gcttgctcgg cacaacttcg gtctctccag
 240
 cctcattcct gcccgactc cgccaaactg ctgcacctgc ccagcgcagc ggatgcagcg
 300
 ctcccggccc nacgg
 315

<210> 4284

<211> 91
 <212> PRT
 <213> Homo sapiens

<400> 4284
 Met Gly Cys Pro Ser Ala Ala Asp Arg Phe Pro Arg Arg Pro Asn Arg
 1 5 10 15
 Ser Asn Gly Gln Gly Arg Gly Ala Gly Gly Pro Gly Glu Thr Glu Ser
 20 25 30
 Pro Pro Gly Pro His Arg Val Ala Pro Thr Glu Ile Thr Pro Val Gln
 35 40 45
 Leu Gln Lys Pro Ser Arg Lys Pro Lys Leu Val Arg His Asn Phe Gly
 50 55 60
 Leu Ser Ser Leu Ile Pro Ala Arg Thr Pro Pro Asn Cys Ser Pro Cys
 65 70 75 80
 Pro Ala Gln Arg Met Gln Arg Ser Arg Pro Xaa
 85 90

<210> 4285
 <211> 591
 <212> DNA
 <213> Homo sapiens

<400> 4285
 nagatctcag agaacttggt gaacattcag aaaatgcaga aaacgcagggt gaaatgccgc
 60
 aaaatcctga ccaagatgaa gcagcagggt catgagacag ccgcctgtcc ggagactgaa
 120
 gagataccgc agggagccag tggctgctgg aaggatgacc tccagaagga actgagtgat
 180
 atatggtgat gccagcctg cagtctgacc cctgaccctc ctctgaaccc gttcccccaa
 240
 cgggatctgg cagtgaccac cagaacctgg agccacctg agtccagact tccctcacc
 300
 cctaggactc accccaccac ggcccccaac cttagctgta ctgctgtcta caccctgagc
 360
 agtgtggagt ctcccagcgc cccagctcc ttgtcttctt gcaggtctgc tgtgcacgtg
 420
 ctgcaggact ccatagacag cctcactttg tgctcggggg cctgtcccaa ggcctcgagc
 480
 ctaagaggcc acaagggcac cagtgcctga gccctccact cccctcctgg gactctgact
 540
 ccgactgtga ccaggacctc tcccagccac ctttcagcaa gagcggccgc a
 591

<210> 4286
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4286
 Cys Pro Ala Cys Ser Leu Thr Pro Asp Pro Pro Leu Asn Pro Phe Pro
 1 5 10 15
 Gln Arg Asp Leu Ala Val Thr Thr Arg Thr Trp Ser Pro Pro Glu Ser

	20					25				30					
Arg	Leu	Pro	Ser	Pro	Pro	Arg	Thr	His	Pro	Thr	Thr	Ala	Pro	Asn	Leu
	35					40						45			
Ser	Cys	Thr	Ala	Val	Tyr	Thr	Leu	Ser	Ser	Val	Glu	Ser	Pro	Ser	Ala
	50					55					60				
Pro	Ser	Ser	Leu	Ser	Ser	Cys	Arg	Ser	Ala	Val	His	Val	Leu	Gln	Asp
65					70					75				80	
Ser	Ile	Asp	Ser	Leu	Thr	Leu	Cys	Ser	Gly	Ala	Cys	Pro	Lys	Ala	Ser
			85					90					95		
Ser	Leu	Arg	Gly	His	Lys	Gly	Thr	Ser	Ala						
			100					105							

<210> 4287
 <211> 868
 <212> DNA
 <213> Homo sapiens

<400> 4287
 cgaggcgcg actgcggggt tcctggtgct gaggacggac gccattggag ttcccagagaa
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 ggctgagctc tcattctccct gggacccgca gcatggctga gggaagcttc agcgtgcaat
 120
 cggaaagcta cagtgttgaa gacatggatg agggtagcga cgaagtcggg gaggaagaga
 180
 tggttgaagg caacgactat gaagaattcg gtgcgtttgg tggctatggc accctcacca
 240
 gctttgacat ccatatcctc agagccttcg gaagcttggg tccaggcctt cgcattctat
 300
 cgaatgagcc ctgggaactg gaaaaccnct gtgctggccc agaccctggt ggaggcattg
 360
 cagctggatc cggaaacact tgccaatgag acggccgccc gtgctgccaa cgtagcccgc
 420
 gccgcgcct ccaaccgtgc ggctcgggccc gctgccgccc ctgcccgtac cgccttcagt
 480
 cagggtggtcg ctagccaccg ggtggccacg ccgcaggtct caggagagga taccagccc
 540
 acgacctacg ccgccgaggc tcagggggccc accctgagc cacccttgc ttctccgcag
 600
 acctcccaga tgttagtcac cagtaagatg gctgcccccg aggctccggc aacctccgca
 660
 cagtcccaga caggctcccc ggcccaggag gctgctactg agggccctag tagcgctgt
 720
 gcattctctc aggctccgtg tgccaggag gtggacgcca accggcccag cacagccttc
 780
 ctggggccaga atgatgtctt cgatttcact cagccggcag tgtcagtggc atggcttccc
 840
 gcgcccaga gacctgccc gccaagag
 868

<210> 4288
 <211> 240
 <212> PRT
 <213> Homo sapiens

<400> 4288

```

Met Arg Val Ala Thr Lys Ser Gly Arg Lys Arg Trp Leu Lys Ala Thr
 1           5           10           15
Thr Met Lys Asn Ser Val Arg Leu Val Ala Met Ala Pro Ser Pro Ala
 20           25           30
Leu Thr Ser Ile Ser Ser Glu Pro Ser Glu Ala Trp Val Gln Ala Phe
 35           40           45
Ala Ser Tyr Arg Met Ser Pro Gly Asn Trp Lys Thr Xaa Val Leu Ala
 50           55           60
Gln Thr Leu Val Glu Ala Leu Gln Leu Asp Pro Glu Thr Leu Ala Asn
 65           70           75           80
Glu Thr Ala Ala Arg Ala Ala Asn Val Ala Arg Ala Ala Ala Ser Asn
 85           90           95
Arg Ala Ala Arg Ala Ala Ala Ala Ala Arg Thr Ala Phe Ser Gln
 100          105          110
Val Val Ala Ser His Arg Val Ala Thr Pro Gln Val Ser Gly Glu Asp
 115          120          125
Thr Gln Pro Thr Thr Tyr Ala Ala Glu Ala Gln Gly Pro Thr Pro Glu
 130          135          140
Pro Pro Leu Ala Ser Pro Gln Thr Ser Gln Met Leu Val Thr Ser Lys
 145          150          155          160
Met Ala Ala Pro Glu Ala Pro Ala Thr Ser Ala Gln Ser Gln Thr Gly
 165          170          175
Ser Pro Ala Gln Glu Ala Ala Thr Glu Gly Pro Ser Ser Ala Cys Ala
 180          185          190
Phe Ser Gln Ala Pro Cys Ala Arg Glu Val Asp Ala Asn Arg Pro Ser
 195          200          205
Thr Ala Phe Leu Gly Gln Asn Asp Val Phe Asp Phe Thr Gln Pro Ala
 210          215          220
Val Ser Val Ala Trp Leu Pro Ala Pro Lys Arg Pro Ala Gln Pro Arg
 225          230          235          240

```

<210> 4289

<211> 353

<212> DNA

<213> Homo sapiens

<400> 4289

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ggatccctgg gaagatgact accctgcttg tgcgggatata gagggagaaa tatgggagcc
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tcctcacttc aggtgtcact gctcagcata tatccaggct ttgttttcat attggtcttg
 120
caaagagcct tttgggaaca gttttcttat tgaaacatac tcagtgttta aacctgcagg
 180
tgtgggttgg tggcagtcca catggcatcc tttgctctgt ccctgttctc ctgtctctgg
 240
ctattcaggt tcccgtgagg atactgtcac ccttgaataa tggagcttgc ggaagaccaa
 300
gccctgtttt ttggagtcct tgtgctgagg ccgctgtaac ttgcggagag ttg
 353

```

<210> 4290

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4290

```

Met Thr Thr Leu Pro Val Arg Asp Met Arg Glu Lys Tyr Gly Ser Leu
 1           5           10           15
Leu Thr Ser Gly Val Thr Ala Gln His Ile Ser Arg Leu Cys Phe His
 20           25           30
Ile Gly Leu Ala Lys Ser Leu Leu Gly Thr Val Phe Leu Leu Lys His
 35           40           45
Thr Gln Cys Leu Asn Leu Gln Val Trp Val Gly Gly Ser Pro His Gly
 50           55           60
Ile Leu Cys Ser Val Pro Val Leu Leu Ser Leu Ala Ile Gln Val Pro
 65           70           75           80
Val Arg Ile Leu Ser Pro Leu Asn Asn Gly Ala Cys Gly Arg Pro Ser
 85           90           95
Pro Cys Phe Trp Ser Pro Cys Ala Glu Ala Ala Val Thr Cys Gly Glu
 100          105          110
Leu

```

<210> 4291

<211> 517

<212> DNA

<213> Homo sapiens

<400> 4291

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nnaaatttgc caagccaaga gttaccccag gaagattctc tcttacatgg ccaattttca
60
caagcagtca ctcccctagc ccatcatcac acagattatt caaagcccac cgatatctca
120
tggagagaca cactttctca gaagtttggg tcttcagatc acttggagaa actatttaag
180
atggatgaag caagtgccca gctccttgct tataaggaaa aaggccattc tcagagttca
240
caattttcct ctgatcaaga aatagctcat ctgctgcctg aaaatgtgag tgcgctccca
300
gctacggtgg cagttgcttc tccacatacc acctcggcta ctccaaagcc cgccaccctt
360
ctaccaccca atgcttcagt gacaccttct gggacttccc agccacagct ggccaccaca
420
gctccacctg taaccactgt cacttctcag cctcccacga ccctcatttc tacagttttt
480
acacgggctg tggctacact ccaagcaatg gctacaa
517

```

<210> 4292

<211> 172

<212> PRT

<213> Homo sapiens

<400> 4292

```

Xaa Asn Leu Pro Ser Gln Glu Leu Pro Gln Glu Asp Ser Leu Leu His
 1           5           10           15
Gly Gln Phe Ser Gln Ala Val Thr Pro Leu Ala His His His Thr Asp

```


<400> 4294
Ala Gly Ala Pro Gly Ala Asp Ala Cys Ser Val Pro Val Ser Glu Ile

```

1           5           10           15
Ile Ala Val Glu Thr Asp Val His Gly Lys His Gln Gly Ser Gly
20           25           30
Lys Trp Gln Lys Met Glu Lys Pro Tyr Ala Phe Thr Val His Cys Val
35           40           45
Lys Arg Ala Arg Arg His Arg Trp Lys Trp Ala Gln Val Thr Phe Trp
50           55           60
Cys Pro Glu Glu Gln Leu Cys His Leu Trp Leu Gln Thr Leu Arg Glu
65           70           75           80
Met Leu Glu Lys Leu Thr Ser Arg Pro Lys His Leu Leu Val Phe Ile
85           90           95
Asn Pro Phe Gly Gly Lys Gly Gln Gly Lys Arg Ile Tyr Glu Arg Lys
100          105          110
Val Ala Pro Leu Phe Thr Leu Ala Ser Ile Thr Thr Asp Ile Ile Val
115          120          125
Thr Glu His Ala Asn Gln Ala Lys Glu Thr Leu Tyr Glu Ile Asn Ile
130          135          140
Asp Lys Tyr Asp Gly Ile Val Cys Val Gly Gly Asp Gly Met Phe Ser
145          150          155          160
Glu Val Leu His Gly Leu Ile Gly Arg Thr Gln Arg Ser Ala Gly Val
165          170          175
Asp Gln Asn His Pro Arg
180

```

<210> 4295
 <211> 431
 <212> DNA
 <213> Homo sapiens

```

<400> 4295
nntctagaaa atcactgtct ccttctaccc tgccatctct acaccaggggt tacaacaag
60
agcccaactgc tggctccttg ttttgtaa at aagatttggt ggactacagc tatgcccgta
120
catgtacatt ttgtgtatgg ctgcttttgt gccacaacag cagggttgag tattgcgaca
180
gagaccccca ttgccacaaa gcctaaaaca tttgccatcg agccctttaa gaaagagttt
240
gctggccgtg cgcggtggcc gtggctcccg cctgtaatcc cagcactttg gaaggctgag
300
gcaggcgggt aggtctggag ttcgaaacca gcctggccag cgtggcgaaa cctgtctcc
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420
cgtgccaacc a
431

```

<210> 4296
 <211> 138
 <212> PRT
 <213> Homo sapiens

```

<400> 4296
Xaa Leu Glu Asn His Cys Leu Leu Leu Pro Cys His Leu Tyr Thr Arg

```

```

      1             5             10             15
Val Thr Asn Lys Ser Pro Leu Leu Ala Pro Cys Phe Val Asn Lys Ile
      20             25             30
Cys Trp Thr Thr Ala Met Pro Val His Val His Phe Val Tyr Gly Cys
      35             40             45
Phe Cys Ala Thr Thr Ala Gly Leu Ser Ile Ala Thr Glu Thr Pro Ile
      50             55             60
Ala His Lys Pro Lys Thr Phe Ala Ile Glu Pro Phe Lys Lys Glu Phe
      65             70             75             80
Ala Gly Arg Ala Arg Trp Pro Trp Leu Pro Pro Val Ile Pro Ala Leu
      85             90             95
Trp Lys Ala Glu Ala Gly Gly Glu Val Trp Ser Ser Lys Pro Ala Trp
      100             105             110
Pro Ala Trp Arg Asn Pro Val Ser Pro Ser Gln Ile His Val Ile Ile
      115             120             125
Pro Pro Gln Pro Pro Glu Tyr Leu Gly Leu
      130             135

```

<210> 4297

<211> 1668

<212> DNA

<213> Homo sapiens

<400> 4297

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nccatggact cggcctttgt gggataaaag gtcaaccaag tgtcagctgc agttggaaaa
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gatttcaccg tgattccatc taaactgatt cagtttgacc caggaatgtc aactaagatg
120
tggaatatag caattaccta tgacggatta gaggaagatg atgaggtctt tgaagtaatt
180
ctgaactccc ctgtgaatgc agttcttggc acaaagacaa aagctgcagt gaaaattttg
240
gactcaaaaag gaggacaatg ccacccctca tattcctcca accaaagcaa gcacagcaca
300
tgggagaagg gcatttggca tctgctgccc ccagggtctt cctcatccac cacttctggt
360
tcctttcatc tggaaagaag acctcttcca tcttccatgc agctagcagt catcagggga
420
gacaccctgc ggggctttga ttctacagat ctttctcaaa ggaagcttag gaccctggg
480
aatggcaaaa cagttcgtcc atcctctggt tatagaaatg gaacagacat catctataat
540
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<211> 411

<212> PRT

<213> Homo sapiens

<400> 4298

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<213> Homo sapiens

<400> 4300

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<211> 2429

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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Thr	Glu	Phe	Glu	Asn	Gly	Asn	Arg	Ser	Trp	Phe	Tyr	Phe	Ser	Val	Arg
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<212> DNA

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<210> 4306

<211> 1052

<212> PRT

<213> Homo sapiens

<400> 4306

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Thr	Leu	Thr	Ala	Ala	Gly	Ala	Cys	Pro	Gly	Ala	Gly	Ala	Asp	Ala	Leu
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Glu	Ser	Pro	Ala	Ser	Pro	Gln	Leu	Val	Leu	Pro	Ala	Asn	Leu	Gly	Asp
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Asn	Ala	Val	Val	Cys	Ile	Val	Gly	Thr	His	Ala	Asp	Leu	Cys	Gly	Glu		
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Arg	Glu	Leu	Glu	Glu	Lys	Cys	Leu	Asp	Ile	His	Arg	Gln	Ile	Ala	Leu		
545					550					555					560		
Gln	Glu	Lys	His	Asp	Ala	Glu	Gly	Leu	Ser	Arg	Leu	Ala	Lys	Val	Val		
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Asp	Glu	Ala	Leu	Ala	Arg	Asp	Phe	Glu	Leu	Arg	Ser	Ala	Ser	Pro	His		
			580					585						590			
Ala	Ala	Tyr	Tyr	Gly	Val	Ser	Asp	Lys	Asn	Leu	Arg	Arg	Arg	Lys	Ala		
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His	Phe	Gln	Tyr	Leu	Leu	Asn	His	Arg	Leu	Gln	Ile	Leu	Ser	Pro	Val		
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625					630					635					640		
Lys	Leu	Leu	Ser	Val	Ala	Glu	His	Arg	Glu	Ile	Phe	Pro	Asn	Leu	His		
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Arg	Val	Leu	Pro	Arg	Ser	Trp	Gln	Val	Leu	Glu	Glu	Leu	His	Phe	Gln		
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Pro	Pro	Gln	Ala	Gln	Arg	Leu	Trp	Leu	Ser	Trp	Trp	Asp	Ser	Ala	Arg		
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Leu	Gly	Leu	Gln	Ala	Gly	Leu	Thr	Glu	Asp	Arg	Leu	Gln	Ser	Ala	Leu		
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Ser	Tyr	Leu	His	Glu	Ser	Gly	Lys	Leu	Leu	Tyr	Phe	Glu	Asp	Ser	Pro		
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Leu	Asn	Val	Phe	Gln	Arg	Asp	Pro	Ser	Leu	Leu	Leu	His	Lys	Leu			
		740					745							750			
Leu	Leu	Gly	Thr	Ser	Gly	Glu	Gly	Lys	Ala	Glu	Gly	Glu	Ser	Ser	Pro		
		755					760					765					
Pro	Met	Ala	Arg	Ser	Thr	Pro	Ser	Gln	Glu	Leu	Leu	Arg	Ala	Thr	Gln		
	770					775						780					
Leu	His	Gln	Tyr	Val	Glu	Gly	Phe	Leu	Leu	His	Gly	Leu	Leu	Pro	Ala		
785					790					795					800		
His	Val	Ile	Arg	Leu	Leu	Leu	Lys	Pro	His	Val	Gln	Ala	Gln	Gln	Asp		
				805					810						815		
Leu	Gln	Leu	Leu	Leu	Glu	Leu	Leu	Glu	Lys	Met	Gly	Leu	Cys	Tyr	Cys		
			820					825						830			
Leu	Asn	Lys	Pro	Lys	Gly	Lys	Pro	Leu	Asn	Gly	Ser	Thr	Ala	Trp	Tyr		
		835					840							845			
Lys	Phe	Pro	Cys	Tyr	Val	Gln	Asn	Glu	Val	Pro	His	Ala	Glu	Ala	Trp		
		850				855					860						
Ile	Asn	Gly	Thr	Asn	Leu	Ala	Gly	Gln	Ser	Phe	Val	Ala	Glu	Gln	Leu		
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Gln	Ile	Glu	Tyr	Ser	Phe	Pro	Phe	Thr	Phe	Pro	Pro	Gly	Leu	Phe	Ala		
				885					890						895		
Arg	Tyr	Ser	Val	Gln	Ile	Asn	Ser	His	Val	Val	His	Arg	Ser	Asp	Gly		
			900					905						910			
Lys	Phe	Gln	Ile	Phe	Ala	Tyr	Arg	Gly	Lys	Val	Pro	Val	Val	Val	Ser		
		915					920					925					
Tyr	Arg	Pro	Ala	Arg	Gly	Val	Leu	Gln	Pro	Asp	Thr	Leu	Ser	Ile	Ala		

930		935		940
Ser His Ala Ser Leu Pro Asn Ile Trp Thr Ala Trp Gln Ala Ile Thr				
945		950		955
Pro Leu Val Glu Glu Leu Asn Val Leu Leu Gln Glu Trp Pro Gly Leu				960
	965		970	
His Tyr Thr Val His Ile Leu Cys Ser Lys Cys Leu Lys Arg Gly Ser				975
	980		985	
Pro Asn Pro His Ala Phe Pro Gly Glu Leu Leu Ser Gln Pro Arg Pro				990
	995		1000	
Glu Gly Val Ala Glu Ile Ile Cys Pro Lys Asn Gly Ser Glu Arg Val				1005
	1010		1015	
Asn Val Ala Leu Val Tyr Pro Pro Thr Pro Thr Val Ile Ser Pro Cys				1020
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Ser Lys Lys Asn Val Gly Glu Lys His Arg Asn Gln				1040
	1045		1050	

<210> 4307
 <211> 947
 <212> DNA
 <213> Homo sapiens

<400> 4307
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 840
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<210> 4308
 <211> 200
 <212> PRT
 <213> Homo sapiens

<400> 4308
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 20 25 30
 Ala Pro Gly Ala Arg Cys His Gly Asp Ala Pro Gly Ser Leu Ala Ala
 35 40 45
 Arg Cys Gly Cys Gly Val Gln Gly Val Gln Gly Thr Ala Arg Cys Ala
 50 55 60
 Ser Cys Ser Cys Cys His Ala Ser Leu Cys Pro Ala Gly Gly Cys Gly
 65 70 75 80
 Trp Gly Cys Ser Phe Leu Thr Gly Xaa Cys Gly Gly Ser Gly Ala Xaa
 85 90 95
 Cys Gly Asp Cys Glu Gly Phe Asp Val His Ile Met Asp Asp Met Ile
 100 105 110
 Lys Val Gly Arg Ala Thr Leu Cys Ile Val Pro Pro Thr Cys Ser Cys
 115 120 125
 Ile Ala Gly Leu Ser Gln Gly Pro Ser Leu Gly Ser Thr Gly Ser Ser
 130 135 140
 Val Gly Gly Ser Glu Val Arg Cys Cys His Phe Val Trp Phe Asn Met
 145 150 155 160
 Ser Ile Ala Trp Tyr Gln Pro Cys Ser Trp Leu Arg Ala Val Thr Leu
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 180 185 190
 Cys Gln Cys Pro Gln Leu Leu Phe
 195 200

<210> 4309
 <211> 1928
 <212> DNA
 <213> Homo sapiens

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 360
 aataggcatg aaaaattcag ttggtgaagg gaatatctcg ttctcatcct ttggtgccga
 420

caataacata tccaaagcct tttgggtattg ttgacgttcc tgctgaattg ttacttcaact
480
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540
catatcaaca tcattttgct ttaccgagtt ttccctccgat gtgcagccta agtctacttt
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780
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1140
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1928

<210> 4310

<211> 599
 <212> PRT
 <213> Homo sapiens

<400> 4310

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Phe Cys Thr Asp Ser Ser Ser Leu Arg Leu Ser Thr Leu Gln Leu Val
      35           40           45
Lys Asn His Met Ala Val His Tyr Asn Lys Ile Leu Ser Ala Lys Ala
      50           55           60
Ala Val Asp Cys Ser Val Pro Val Ser Val Ser Thr Ser Ile Lys Tyr
      65           70           75           80
Ala Asp Gln Gln Arg Arg Glu Lys Leu Lys Lys Glu Leu Ala Gln Cys
      85           90           95
Glu Lys Glu Phe Lys Leu Thr Lys Thr Ala Met Arg Ala Asn Tyr Lys
      100          105          110
Asn Asn Ser Lys Ser Leu Phe Asn Thr Leu Gln Lys Pro Ser Gly Glu
      115          120          125
Pro Gln Ile Glu Asp Asp Met Leu Lys Glu Glu Met Asn Gly Phe Ser
      130          135          140
Ser Phe Ala Arg Ser Leu Val Pro Ser Ser Glu Arg Leu His Leu Ser
      145          150          155          160
Leu His Lys Ser Ser Lys Val Ile Thr Asn Gly Pro Glu Lys Asn Ser
      165          170          175
Ser Ser Ser Pro Ser Ser Val Asp Tyr Ala Ala Ser Gly Pro Arg Lys
      180          185          190
Leu Ser Ser Gly Ala Leu Tyr Gly Arg Arg Pro Arg Ser Thr Phe Pro
      195          200          205
Asn Ser His Arg Phe Gln Leu Val Ile Ser Lys Ala Pro Ser Gly Asp
      210          215          220
Leu Leu Asp Lys His Ser Glu Leu Phe Ser Asn Lys Gln Leu Pro Phe
      225          230          235          240
Thr Pro Arg Thr Leu Lys Thr Glu Ala Lys Ser Phe Leu Ser Gln Tyr
      245          250          255
Arg Tyr Tyr Thr Pro Ala Lys Arg Lys Lys Asp Phe Thr Asp Gln Arg
      260          265          270
Ile Glu Ala Glu Thr Gln Thr Glu Leu Ser Phe Lys Ser Glu Leu Gly
      275          280          285
Thr Ala Glu Thr Lys Asn Met Thr Asp Ser Glu Met Asn Ile Lys Gln
      290          295          300
Ala Ser Asn Cys Val Thr Tyr Asp Ala Lys Glu Lys Ile Ala Pro Leu
      305          310          315          320
Pro Leu Glu Gly His Asp Ser Thr Trp Asp Glu Ile Lys Asp Asp Ala
      325          330          335
Leu Gln His Ser Ser Pro Arg Ala Met Cys Gln Tyr Ser Leu Lys Pro
      340          345          350
Pro Ser Thr Arg Lys Ile Tyr Ser Asp Glu Glu Glu Leu Leu Tyr Leu
      355          360          365
Ser Phe Ile Glu Asp Val Thr Asp Glu Ile Leu Lys Leu Gly Leu Phe
      370          375          380
Ser Asn Arg Phe Leu Glu Arg Leu Phe Glu Arg His Ile Lys Gln Asn

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385 390 395 400
 Lys His Leu Glu Glu Glu Lys Met Arg His Leu Leu His Val Leu Lys
 405 410 415
 Val Asp Leu Gly Cys Thr Ser Glu Glu Asn Ser Val Lys Gln Asn Asp
 420 425 430
 Val Asp Met Leu Asn Val Phe Asp Phe Glu Lys Ala Gly Asn Ser Glu
 435 440 445
 Pro Asn Glu Leu Lys Asn Glu Ser Glu Val Thr Ile Gln Gln Glu Arg
 450 455 460
 Gln Gln Tyr Gln Lys Ala Leu Asp Met Leu Leu Ser Ala Pro Lys Asp
 465 470 475 480
 Glu Asn Glu Ile Phe Pro Ser Pro Thr Glu Phe Phe Met Pro Ile Tyr
 485 490 495
 Lys Ser Lys His Ser Glu Gly Val Ile Ile Gln Gln Val Asn Asp Glu
 500 505 510
 Thr Asn Leu Glu Thr Ser Thr Leu Asp Glu Asn His Pro Ser Ile Ser
 515 520 525
 Asp Ser Leu Thr Asp Arg Glu Thr Ser Val Asn Val Ile Glu Gly Asp
 530 535 540
 Ser Asp Pro Glu Lys Val Glu Ile Ser Asn Gly Leu Cys Gly Leu Asn
 545 550 555 560
 Thr Ser Pro Ser Gln Ser Val Gln Phe Ser Ser Val Lys Gly Asp Asn
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<210> 4311
 <211> 432
 <212> DNA
 <213> Homo sapiens

<400> 4311
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 aaaaacataa ccaactggggc atctgcagca tcccagactc agatgcctac gggccagaca
 180
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<210> 4312
 <211> 144
 <212> PRT

<213> Homo sapiens

<400> 4312

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His Tyr Asp Val Gln Ser Ile Leu Phe Asn Ile Asn Glu Ala Met Ala
 20           25           30
Thr Arg Ala Asn Val Gly Lys Arg Lys Asn Ile Thr Thr Gly Ala Ser
 35           40           45
Ala Ala Ser Gln Thr Gln Met Pro Thr Gly Gln Thr Gly Asn Cys Glu
 50           55           60
Ser Pro Leu Gly Ser Lys Glu Asp Leu Asn Ser Lys Glu Asn Leu Asp
 65           70           75           80
Ala Asp Glu Gly Asp Gly Lys Ser Asn Asp Leu Val Leu Ser Cys Pro
 85           90           95
Tyr Phe Arg Asn Glu Thr Gly Gly Glu Gly Asp Arg Arg Ile Ala Leu
100           105           110
Ser Arg Ala Asn Ser Ser Ser Phe Ser Ser Gly Glu Ser Cys Ser Phe
115           120           125
Glu Ser Ser Leu Ser Ser His Cys Thr Asn Ala Gly Val Ser Val Leu
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<210> 4313

<211> 936

<212> DNA

<213> Homo sapiens

<400> 4313

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120
attcagtatc caaccatcct ctccattctc ctctggacct caccactctc agagctgctt
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240
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360
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420
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780

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<210> 4314

<211> 110

<212> PRT

<213> Homo sapiens

<400> 4314

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			20					25					30		
Leu	Gln	Pro	His	Pro	Phe	Ser	Thr	Gly	Pro	Trp	Tyr	Pro	Gly	Ser	Ser
			35				40					45			
Leu	Ser	Ser	Ala	Thr	Asp	Leu	Cys	Ala	Leu	Val	Tyr	Phe	Ser	Ala	Arg
	50					55					60				
Gly	Thr	His	Pro	Lys	Thr	Ile	Ser	Ser	Ser	Phe	Pro	Gly	Asp	Val	Val
65					70					75				80	
Pro	Gln	Gly	Trp	Ala	Leu	Gln	Leu	Trp	Pro	Ser	Ser	Leu	Val	Leu	Pro
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<210> 4315

<211> 573

<212> DNA

<213> Homo sapiens

<400> 4315

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573

<210> 4316
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4316
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 35 40 45
 Pro Ser Pro Ser His Ser His Leu Pro Ser Lys Pro Pro Ser Pro Thr
 50 55 60
 Ile Gln Ala Met Ala Thr Tyr Leu Pro Ser His Gly His Leu Pro Ala
 65 70 75 80
 Lys Pro Trp Ser Pro Thr His Gln Val Met Val Ala Tyr His Pro Arg
 85 90 95
 Ser Arg Pro Gly Thr Asp Pro Ser Pro Glu Pro Ser Val Gly Ala Asn
 100 105 110
 Pro Ala Asp Thr Leu Ile Ser Asp Phe Lys Pro Pro Glu Leu Trp Asp
 115 120 125
 Asn Pro Ser Leu Ser Phe Asn Pro Pro Ser Met Trp Ser Leu Val Thr
 130 135 140
 Val Ala Leu Ala Ser Glu Pro Thr Arg Ala Leu Leu Gln Ser Pro Gly
 145 150 155 160
 Ser Gly Val Val Leu Val Arg Lys Phe
 165

<210> 4317
 <211> 744
 <212> DNA
 <213> Homo sapiens

<400> 4317
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 120
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 180
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 240
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 300
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 360
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 420
 aattgcttag gaatccagcg ctttgcgtgat acccattcac tcaaaacact cttcacaaaa
 480
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 540

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 600
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<210> 4318

<211> 239

<212> PRT

<213> Homo sapiens

<400> 4318

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Ile	Leu	Gln	Ile	Phe	Asn	Glu	Phe	Arg	Asp	Ser	Arg	Leu	Phe	Thr	Asp
		20						25				30			
Val	Ile	Ile	Trp	Val	Glu	Gly	Lys	Glu	Phe	Pro	Cys	His	Arg	Ala	Val
	35					40					45				
Leu	Ser	Ala	Cys	Ser	Ser	Tyr	Phe	Arg	Ala	Met	Phe	Cys	Asn	Asp	His
	50				55					60					
Arg	Glu	Ser	Arg	Glu	Met	Leu	Val	Glu	Ile	Asn	Gly	Ile	Leu	Ala	Glu
65				70						75					80
Ala	Met	Glu	Cys	Phe	Leu	Gln	Tyr	Val	Tyr	Thr	Gly	Lys	Val	Lys	Ile
			85						90					95	
Thr	Thr	Glu	Asn	Val	Gln	Tyr	Leu	Phe	Glu	Thr	Ser	Ser	Leu	Phe	Gln
			100					105					110		
Ile	Ser	Val	Leu	Arg	Asp	Ala	Cys	Ala	Lys	Phe	Leu	Glu	Glu	Gln	Leu
	115					120						125			
Asp	Pro	Cys	Asn	Cys	Leu	Gly	Ile	Gln	Arg	Phe	Ala	Asp	Thr	His	Ser
	130				135						140				
Leu	Lys	Thr	Leu	Phe	Thr	Lys	Cys	Lys	Asn	Phe	Ala	Leu	Gln	Thr	Phe
145				150					155					160	
Glu	Asp	Val	Ser	Gln	His	Glu	Glu	Phe	Leu	Glu	Leu	Asp	Lys	Asp	Glu
			165					170						175	
Leu	Ile	Asp	Tyr	Ile	Cys	Ser	Asp	Glu	Leu	Val	Ile	Gly	Lys	Glu	Glu
	180						185					190			
Met	Val	Phe	Glu	Ala	Val	Met	Arg	Trp	Val	Tyr	Arg	Ala	Val	Asp	Leu
	195					200						205			
Arg	Arg	Pro	Leu	Leu	His	Glu	Leu	Leu	Thr	His	Val	Arg	Leu	Pro	Leu
	210				215						220				
Leu	His	Pro	Asn	Tyr	Phe	Val	Gln	Thr	Val	Glu	Val	Asp	Gln	Leu	
225					230					235					

<210> 4319

<211> 388

<212> DNA

<213> Homo sapiens

<400> 4319

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 120
 gcagtcgcaa gtgactcttg caataatagc atctcactcc tatctgaaaa gttgacaagc
 180
 agctgttccc cccatcatat caagagaagt gtagtggaag ctatgcaacg ccaagctcgg
 240
 aaaatgtgca attacgacaa aatcttg gcc acaaagaaaa acctagacca tgtcaataaa
 300
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 388

<210> 4320
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 4320
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 20 25 30
 Lys Pro Asp Ser Leu Leu Val Pro Ala Val Ala Ser Asp Ser Cys Asn
 35 40 45
 Asn Ser Ile Ser Leu Leu Ser Glu Lys Leu Thr Ser Ser Cys Ser Pro
 50 55 60
 His His Ile Lys Arg Ser Val Val Glu Ala Met Gln Arg Gln Ala Arg
 65 70 75 80
 Lys Met Cys Asn Tyr Asp Lys Ile Leu Ala Thr Lys Lys Asn Leu Asp
 85 90 95
 His Val Asn Lys Ile Leu Lys Ala Lys Lys Leu Gln Arg Gln Ala Arg
 100 105 110
 Thr Gly Asn Asn Phe Val Lys Arg Arg Pro Gly Arg Pro Arg Ser Glu
 115 120 125
 Arg

<210> 4321
 <211> 278
 <212> DNA
 <213> Homo sapiens

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 120
 cgtcccgggtg gaaggcagcc ctgggcggaa cccaggcggt taacggctca ctaggcagcc
 180
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 240
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 278

<210> 4322
 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 4322
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 His Val Leu Ile Cys Ser Pro Asp Leu Gly Leu Pro Ser Glu Pro Leu
 20 25 30
 Asn Ala Trp Val Pro Pro Arg Ala Ala Phe His Arg Asp Ala Gly Pro
 35 40 45
 Ala Val Ala Gly Pro Cys Arg Cys Gly Gly Leu Leu Thr Lys Glu Pro
 50 55 60
 Gly Leu Ala Ala Trp Asn Asn Leu Gln Val Gly Val Leu Arg Gly Leu
 65 70 75 80
 Trp Gln Val Leu Gly
 85

<210> 4323
 <211> 1542
 <212> DNA
 <213> Homo sapiens

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 120
 gacgagaaga ttgaggtgga tgacccccct gacaaggagg acatgcgatc aagcttcagg
 180
 tcgaatgtgt tgacgggggtc ggctccccag caggactacg ataagctgaa ggcactcgga
 240
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 300
 gttaagagag aaacagaagc cagttctata aacctgagtg tttatgaacc ttttaaagtc
 360
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 420
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 480
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 540
 aaggcggctt cagactcctg caaagaacca gtggccaatt cgagggaatc ctccccgtta
 600
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 660
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 720
 gagaacagca gcaaaggatc cccgtcctct cccgcgggggt ccacaccagc aatccccaaa
 780
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 840

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 900
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 960
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 1020
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 1080
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 1140
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 1200
 cagcagcaaa ctgtctgggt gccggcatcc agcctggcca atgccaaact cgtgccaaag
 1260
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 1320
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 1380
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 1440
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 1542

<210> 4324

<211> 514

<212> PRT

<213> Homo sapiens

<400> 4324

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			20					25					30		
Ser	Ser	Ala	Glu	Glu	Phe	Asp	Asp	Asp	Glu	Lys	Ile	Glu	Val	Asp	Asp
		35				40					45				
Pro	Pro	Asp	Lys	Glu	Asp	Met	Arg	Ser	Ser	Phe	Arg	Ser	Asn	Val	Leu
	50				55					60					
Thr	Gly	Ser	Ala	Pro	Gln	Gln	Asp	Tyr	Asp	Lys	Leu	Lys	Ala	Leu	Gly
65				70					75					80	
Gly	Glu	Asn	Ser	Ser	Lys	Thr	Gly	Leu	Ser	Thr	Ser	Gly	Asn	Val	Glu
			85				90						95		
Lys	Asn	Lys	Ala	Val	Lys	Arg	Glu	Thr	Glu	Ala	Ser	Ser	Ile	Asn	Leu
		100					105						110		
Ser	Val	Tyr	Glu	Pro	Phe	Lys	Val	Arg	Lys	Ala	Glu	Asp	Lys	Leu	Lys
		115				120					125				
Glu	Ser	Ser	Asp	Lys	Val	Leu	Glu	Asn	Arg	Val	Leu	Asp	Gly	Lys	Leu
	130					135				140					
Ser	Ser	Glu	Lys	Asn	Asp	Thr	Ser	Leu	Pro	Ser	Val	Ala	Pro	Ser	Lys
145				150					155					160	
Thr	Lys	Ser	Ser	Ser	Lys	Leu	Ser	Ser	Cys	Ile	Ala	Ala	Ile	Ala	Ala
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Leu	Ser	Ala	Lys	Lys	Ala	Ala	Ser	Asp	Ser	Cys	Lys	Glu	Pro	Val	Ala

[illegible]

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<210> 4325
<211> 1405
<212> DNA
<213> Homo sapiens
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120
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gaaccggctc atctttccag gcgagaaggt agcgtctggg tcctgggggt ctgactgagc
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 240
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 300
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 720
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 1200
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 1405

<210> 4326

<211> 336

<212> PRT

<213> Homo sapiens

<400> 4326

Met	Phe	Phe	Leu	Pro	Gln	Val	Leu	Leu	Ala	Trp	Ser	Gly	Gly	Pro	Ser
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Ser	Ser	Ser	Met	Val	Trp	Gln	Val	Leu	Glu	Gly	Leu	Ser	Gln	Asp	Ser

20	25	30
Ala Lys Arg Leu Arg Phe Val	Ala Gly Val Ile Phe Val Asp Glu Gly	
35	40	45
Ala Ala Cys Gly Gln Ser Leu	Glu Glu Arg Ser Lys Thr Leu Ala Glu	
50	55	60
Val Lys Pro Ile Leu Gln Ala Thr	Gly Phe Pro Trp His Val Val Ala	
65	70	75
Leu Glu Glu Val Phe Ser Leu Pro	Pro Ser Val Leu Trp Cys Ser Ala	
85	90	95
Gln Glu Leu Val Gly Ser Glu Gly	Ala Tyr Lys Ala Ala Val Asp Ser	
100	105	110
Phe Leu Gln Gln Gln Tyr Val Leu	Gly Ala Gly Gly Gly Pro Gly Pro	
115	120	125
Thr Gln Gly Glu Glu Gln Pro Pro	Gln Pro Pro Leu Asp Pro Gln Asn	
130	135	140
Leu Ala Arg Pro Pro Ala Pro Ala	Gln Thr Glu Ala Leu Ser Gln Leu	
145	150	155
Phe Cys Ser Val Arg Thr Leu Thr	Ala Lys Glu Glu Leu Leu Gln Thr	
165	170	175
Leu Arg Thr His Leu Ile Leu His	Met Ala Arg Ala His Gly Tyr Ser	
180	185	190
Lys Val Met Thr Gly Asp Ser Cys	Thr Arg Leu Ala Ile Lys Leu Met	
195	200	205
Thr Asn Leu Ala Leu Gly Arg Gly	Ala Phe Leu Ala Trp Asp Thr Gly	
210	215	220
Phe Ser Asp Glu Arg His Gly Asp	Val Val Val Val Arg Pro Met Arg	
225	230	235
Asp His Thr Leu Lys Glu Val Ala	Phe Tyr Asn Arg Leu Phe Ser Val	
245	250	255
Pro Ser Val Phe Thr Pro Ala Val	Asp Thr Lys Ala Pro Glu Lys Ala	
260	265	270
Ser Ile His Arg Leu Met Glu Ala	Phe Ile Leu Arg Leu Gln Thr Gln	
275	280	285
Phe Pro Ser Thr Val Ser Thr Val	Tyr Arg Cys Val Trp Val Cys Ala	
290	295	300
Gly Gly Ala Arg Val Cys Ala Val	Cys Gly Cys Val Arg Val Val Ser	
305	310	315
Ser Pro Leu Val Leu Arg Pro Gly	Leu Arg Val Glu Pro Gln Pro Val	
325	330	335

<210> 4327

<211> 551

<212> DNA

<213> Homo sapiens

<400> 4327

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120

tgtgcaggtg gggaaattta gaccctgaaa aagggatgcc ctgagatcac catgagattg
180

aggggcaagc agggctcacc ctgactggct cacttcccag gcaccccat gagcccaggc
240

accgcctgcc accctcactc tccaggaaga gccaccgcgt ggtggccggg atcgtgtggt
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 551

<210> 4328
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 4328
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 20 25 30
 Ala Thr Ser Ser Pro Trp Leu Cys Gly Leu Ser Val Ser His Pro Gln
 35 40 45
 His Leu Asp Gly Leu Arg Val Arg Ala Lys Val Arg Arg Pro Gly His
 50 55 60
 His Thr Ile Pro Ala Thr Thr Arg Trp Leu Phe Leu Glu Ser Glu Gly
 65 70 75 80
 Gly Arg Arg Cys Leu Gly Ser Trp Gly Cys Leu Gly Ser Glu Pro Val
 85 90 95
 Arg Val Ser Pro Ala Cys Pro Ser Ile Ser Trp
 100 105

<210> 4329
 <211> 3192
 <212> DNA
 <213> Homo sapiens

<400> 4329
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 180
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 240
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 420

ggtgtctctg gaggtaaacc agggcttttg cctgcacaca gcagacacaa cagtccgtcc
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1380
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2040

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 2760
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 2820
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<210> 4330

<211> 371

<212> PRT

<213> Homo sapiens

<400> 4330

Met	Ser	Gln	Pro	Lys	Gln	Lys	Glu	Leu	Ala	Gly	Ser	Val	Arg	Gln	Lys
1				5				10						15	
Met	Leu	Leu	Asp	Tyr	Ser	Val	Tyr	Met	Gly	Arg	Cys	Val	Pro	Gln	Glu
			20					25					30		
Ser	Arg	Ser	Pro	Gln	Arg	Ser	Pro	Leu	Gln	Ser	Ala	Glu	Ser	Ser	Pro
		35					40				45				
Thr	Ala	Gly	Lys	Lys	Leu	Pro	Glu	Val	Pro	Pro	Ser	Glu	Glu	Glu	Glu

50		55		60	
Gln Glu Ala Trp Val	Asn Ala Leu Leu Gly Arg Ile Phe Trp Asp Phe				
65	70	75	80		
Leu Gly Glu Lys Tyr Trp Ser Asp Leu Val Ser Lys Lys Ile Gln Met					
	85	90	95		
Lys Leu Ser Lys Ile Lys Leu Pro Tyr Phe Met Asn Glu Leu Thr Leu					
	100	105	110		
Thr Glu Leu Asp Met Gly Val Ala Val Pro Lys Ile Leu Gln Ala Phe					
	115	120	125		
Lys Pro Tyr Val Asp His Gln Gly Leu Trp Ile Asp Leu Glu Met Ser					
	130	135	140		
Tyr Asn Gly Ser Phe Leu Met Thr Leu Glu Thr Lys Met Asn Leu Pro					
145	150	155	160		
Lys Leu Gly Lys Glu Pro Leu Val Glu Ala Leu Lys Val Gly Glu Ile					
	165	170	175		
Gly Lys Glu Gly Cys Arg Pro Arg Ala Phe Cys Leu Ala Asp Ser Asp					
	180	185	190		
Glu Glu Ser Ser Ala Gly Ser Ser Glu Glu Asp Asp Ala Pro Glu					
	195	200	205		
Pro Ala Gly Glu Thr Asn Ser Ser Ser Gln Gly Glu Gly Tyr Val Gly					
	210	215	220		
Gly His Arg Thr Ser Lys Ile Met Arg Phe Val Asp Lys Ile Thr Lys					
225	230	235	240		
Ser Lys Tyr Phe Gln Lys Ala Thr Glu Thr Glu Phe Ile Lys Arg Xaa					
	245	250	255		
Ile Glu Glu Val Ser Asn Thr Pro Leu Leu Leu Thr Val Glu Val Gln					
	260	265	270		
Glu Cys Arg Gly Thr Leu Ala Val Asn Ile Pro Pro Pro Pro Thr Asp					
	275	280	285		
Arg Val Trp Tyr Gly Phe Arg Lys Pro Pro His Val Glu Leu Lys Ala					
290	295	300			
Arg Pro Lys Leu Gly Glu Arg Glu Val Thr Leu Val His Val Thr Asp					
305	310	315	320		
Trp Ile Glu Lys Lys Leu Glu Gln Glu Phe Gln Lys Val Phe Val Met					
	325	330	335		
Pro Asn Met Asp Asp Val Tyr Ile Thr Ile Met His Ser Ala Met Asp					
	340	345	350		
Pro Arg Ser Thr Ser Cys Leu Leu Lys Asp Pro Pro Val Glu Ala Ala					
	355	360	365		
Asp Arg Pro					
370					

<210> 4331

<211> 1355

<212> DNA

<213> Homo sapiens

<400> 4331

gaaaaatatt ttaaccataa ggctcttcag cttcttcact gtttccctct ggacatacga
60

ttaaaagatg gcagtttatt ttggcagtca ccaaagaggc caccctctcc aataaaatth
120

gattttaaag agcctttgca cctcagtttc cttcagaatg ctgcaaaact atatgctaca
180

gtatattgta ttccatttgc agaagaggac ttatcagcag atgccctctt gaatattctt
 240
 tcagaagtaa agattcagga attcaagcct tccaataagg ttgttcaaac agatgaaact
 300
 gcaaggaaac cagaccatgt tcctatttagc agtgaagatg agaggaatgc aattttccaa
 360
 ctagaaaagg ctattttatc taatgaagcc accaaaagtg accttcagat ggcagtgcctt
 420
 tcatttgaaa aagatgatga tcataatgga cacatagatt tcatcacagc tgcacaaat
 480
 cttcgtgcca aaatgtacag cattgaacca gctgaccgtt tcaaaacaaa gcgcatagct
 540
 ggtaaaatta tacctgctat agcaacaacc actgctacag tttctggctt ggttgccctg
 600
 gagatgatca aagtaactgg tggctatcca tttgaagctt acaaaaattg ttttcttaac
 660
 ttagccattc caattgtagt atttacagag acaactgaag taaggaaaac taaaatcaga
 720
 aatggaatat catttacaat ttgggatcga tggaccgtac atggaaaaga agatttcacc
 780
 ctcttggtt tcataaatgc agtcaaagag aagtatggaa ttgagccaac aatgggtggt
 840
 cagggagtca aaatgcttta tgttcctgta atgcctggtc atgcaaaaag attgaagtta
 900
 acaatgcata aacttgtaaa acctactact gaaaagaaat atgtggatct tactgtgtca
 960
 tttgctccag acattgatgg agatgaagat ttgccgggac ctccagtaag atactacttc
 1020
 agtcatgaca ctgattaata caagttgtct taacgttact ccaggaccac ttgattttgg
 1080
 aaagagtgca ctttaattcag aagctaaaga aaatcagttc ataatactat ggattttctct
 1140
 ttcattaagc ctttaatttta agggaaacat cagtaagaaa ctgcactgaa gaattataaa
 1200
 acattttggg gcatagcata cacttgtcta acggttcaca cgtggctatg atcacaagca
 1260
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 1320
 tggataaaaa gaaggaaaaa atatgtatga ccggt
 1355

<210> 4332

<211> 345

<212> PRT

<213> Homo sapiens

<400> 4332

Glu	Lys	Tyr	Phe	Asn	His	Lys	Ala	Leu	Gln	Leu	Leu	His	Cys	Phe	Pro
1				5				10					15		
Leu	Asp	Ile	Arg	Leu	Lys	Asp	Gly	Ser	Leu	Phe	Trp	Gln	Ser	Pro	Lys
			20				25					30			
Arg	Pro	Pro	Ser	Pro	Ile	Lys	Phe	Asp	Leu	Asn	Glu	Pro	Leu	His	Leu
		35				40					45				
Ser	Phe	Leu	Gln	Asn	Ala	Ala	Lys	Leu	Tyr	Ala	Thr	Val	Tyr	Cys	Ile

50	55	60
Pro Phe Ala Glu Glu Asp	Leu Ser Ala Asp Ala	Leu Leu Asn Ile Leu
65	70	75
Ser Glu Val Lys Ile Gln	Glu Phe Lys Pro Ser	Asn Lys Val Val Gln
85	90	95
Thr Asp Glu Thr Ala Arg	Lys Pro Asp His Val	Pro Ile Ser Ser Glu
100	105	110
Asp Glu Arg Asn Ala Ile	Phe Gln Leu Glu Lys	Ala Ile Leu Ser Asn
115	120	125
Glu Ala Thr Lys Ser Asp	Leu Gln Met Ala Val	Leu Ser Phe Glu Lys
130	135	140
Asp Asp Asp His Asn Gly	His Ile Asp Phe Ile	Thr Ala Ala Ser Asn
145	150	155
Leu Arg Ala Lys Met Tyr	Ser Ile Glu Pro Ala	Asp Arg Phe Lys Thr
165	170	175
Lys Arg Ile Ala Gly Lys	Ile Ile Pro Ala Ile	Ala Thr Thr Thr Ala
180	185	190
Thr Val Ser Gly Leu Val	Ala Leu Glu Met Ile	Lys Val Thr Gly Gly
195	200	205
Tyr Pro Phe Glu Ala Tyr	Lys Asn Cys Phe Leu	Asn Leu Ala Ile Pro
210	215	220
Ile Val Val Phe Thr Glu	Thr Thr Glu Val Arg	Lys Thr Lys Ile Arg
225	230	235
Asn Gly Ile Ser Phe Thr	Ile Trp Asp Arg Trp	Thr Val His Gly Lys
245	250	255
Glu Asp Phe Thr Leu Leu	Asp Phe Ile Asn Ala	Val Lys Glu Lys Tyr
260	265	270
Gly Ile Glu Pro Thr Met	Val Val Gln Gly Val	Lys Met Leu Tyr Val
275	280	285
Pro Val Met Pro Gly His	Ala Lys Arg Leu Lys	Leu Thr Met His Lys
290	295	300
Leu Val Lys Pro Thr Thr	Glu Lys Lys Tyr Val	Asp Leu Thr Val Ser
305	310	315
Phe Ala Pro Asp Ile Asp	Gly Asp Glu Asp Leu	Pro Gly Pro Pro Val
325	330	335
Arg Tyr Tyr Phe Ser His	Asp Thr Asp	
340	345	

<210> 4333

<211> 1278

<212> DNA

<213> Homo sapiens

<400> 4333

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60

ctcggcagcc acgagcgggg gccagggagt ttcccgggtct tcagcccgcc ggggccccca

120

cggaagcccc ccgcgctctc ccgagtgtcc aggatgtttt ccgtgggtca cccagccgccc

180

aaggtgccgc agcccagcgc gctggacctg gtgtacacgg cgctgaagcg gggcctgacg

240

gcctacttgg aagtgcacca gcaggagcaa gagaaactcc aggggcagat aaggaggtcc

300

aagaggaatt cccgcttggg cttcctgtat gatctggaca agcaagtcaa gtccattgaa
 360
 cgcttcctgc gacgactgga gttccatgcc agcaagatcg atgagctgta tgaggcatac
 420
 tgtgtccagc ggcgtctccg ggatggtgcc tacaacatgg tccgtgcta caccactggg
 480
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 540
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 600
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 660
 agcgagctgg aggcacagct gggcgagttt catctccgaa tgaaagggct ggctggcttc
 720
 gccaggctgt gtgtaggcga tcagtatgag atctgcatga aatatgggag tcagcgctgg
 780
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 840
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 900
 aaccatgtgg ttgtgggcag tgtctcctgt gagaccaagg acctgtttgc cgccctgccc
 960
 caggttgtgg ctgtggatat caatgacctt ggtaccatca agctcagcct ggaagtcaca
 1020
 tggagccccct tcgacaagga tgaccagccc tcagctgctt cttctgtcaa caaggcctcc
 1080
 acagtcacca agcgtttctc cacctatagc cagagcccac cggacacacc ctcaactcgg
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 1200
 tcctgtcat ctgaatcttc agacgactca tccagcccac agctctcagg cactgcccgc
 1260
 cactcaccag cccctagg
 1278

<210> 4334

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4334

Arg	Pro	Gln	Arg	Arg	Leu	Leu	Ser	Ala	Arg	Val	Asn	Arg	Ser	Gln	Ser
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Phe	Ala	Gly	Val	Leu	Gly	Ser	His	Glu	Arg	Gly	Pro	Arg	Ser	Phe	Pro
			20					25					30		
Val	Phe	Ser	Pro	Pro	Gly	Pro	Pro	Arg	Lys	Pro	Pro	Ala	Leu	Ser	Arg
		35				40						45			
Val	Ser	Arg	Met	Phe	Ser	Val	Ala	His	Pro	Ala	Ala	Lys	Val	Pro	Gln
	50				55						60				
Pro	Glu	Arg	Leu	Asp	Leu	Val	Tyr	Thr	Ala	Leu	Lys	Arg	Gly	Leu	Thr
65				70						75				80	
Ala	Tyr	Leu	Glu	Val	His	Gln	Gln	Glu	Gln	Glu	Lys	Leu	Gln	Gly	Gln
			85				90						95		
Ile	Arg	Glu	Ser	Lys	Arg	Asn	Ser	Arg	Leu	Gly	Phe	Leu	Tyr	Asp	Leu

	100		105		110										
Asp	Lys	Gln	Val	Lys	Ser	Ile	Glu	Arg	Phe	Leu	Arg	Arg	Leu	Glu	Phe
	115		120		125										
His	Ala	Ser	Lys	Ile	Asp	Glu	Leu	Tyr	Glu	Ala	Tyr	Cys	Val	Gln	Arg
	130		135		140										
Arg	Leu	Arg	Asp	Gly	Ala	Tyr	Asn	Met	Val	Arg	Ala	Tyr	Thr	Thr	Gly
	145		150		155										160
Ser	Pro	Gly	Ser	Arg	Glu	Ala	Arg	Asp	Ser	Leu	Ala	Glu	Ala	Thr	Arg
			165		170									175	
Gly	His	Arg	Glu	Tyr	Thr	Glu	Val	Gly	Asp	Gly	Gly	Pro			
	180							185							

<210> 4335
 <211> 1211
 <212> DNA
 <213> Homo sapiens

<400> 4335
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 gatggggagg agtggctccc cccacttaaa acatttgtgc cctctgtatc cccattccag
 120
 ctggccttgg gtgcggcact cgtgaatgta cagatcccc tgctcctggg ccagctggta
 180
 gaggtcgtgg ccaagtacac aaggggaccac gtagggagtt tcatgactga gtctcagaat
 240
 ctcagcacc acctgcttat cctctatggg gtccagggac tgctgacctt cgggtacctg
 300
 gtgctgctgt cccacgttgg cgagcgcgat gctgtggaca tgcggagggc cctcttcagc
 360
 tccctgctcc gacaagacat caccttcttt gacgccaata agacagggca gctgggtgagc
 420
 cgcttgacaa ctgacgtgca ggagtttaag tcatccttca agcttgatcat ctcccagggg
 480
 ctgcgaagct gcacccagggt ggcaggctgc ctggtgtccc tgtccatgct gtcgacacgc
 540
 ctcacgtgct tgctgatggg ggccacacca gccctgatgg gagggggac cctgatgggc
 600
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 660
 gcagacgagg ccctgggcaa tgtgcggact gtgcgtgcct tcgccatgga gcaacgggaa
 720
 gaggagcgt atggggcaga gctggaagcc tgccgctgcc gggcagagga gctgggcccgc
 780
 ggcacgcct tgttccaagg gctttccaac atcgccctca actgcatggg cttgggtacc
 840
 ctatttattg ggggctccct tgtggccgga cagcagctga cagggggaga cctcatgtcc
 900
 ttcttggtgg cctcccagac agtgcaaagc ttctccgtg ttgcaccctg tccgaattcc
 960
 cttccgctgc aggtgtgac actccatgca tggaaggacc atccttgaca ggctgtgtga
 1020
 gctgcccttc cccatgctg ccaattccag ggatgacaag ctgacccctg tccccacaca
 1080

ccccaccctt atagcttatt gctttgcgtt ggtccaaaac caccgcgtca gctgagcctc
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 1200
 tgtgctcgcg a
 1211

<210> 4336
 <211> 325
 <212> PRT
 <213> Homo sapiens

<400> 4336
 Trp Glu Arg Lys Gly Gln Asp Leu Ala Gly Asp Gly Glu Glu Trp Leu
 1 5 10 15
 Pro Pro Leu Lys Thr Phe Val Pro Ser Val Ser Pro Phe Gln Leu Ala
 20 25 30
 Leu Gly Ala Ala Leu Val Asn Val Gln Ile Pro Leu Leu Leu Gly Gln
 35 40 45
 Leu Val Glu Val Val Ala Lys Tyr Thr Arg Asp His Val Gly Ser Phe
 50 55 60
 Met Thr Glu Ser Gln Asn Leu Ser Thr His Leu Ile Leu Tyr Gly
 65 70 75 80
 Val Gln Gly Leu Leu Thr Phe Gly Tyr Leu Val Leu Leu Ser His Val
 85 90 95
 Gly Glu Arg Met Ala Val Asp Met Arg Arg Ala Leu Phe Ser Ser Leu
 100 105 110
 Leu Arg Gln Asp Ile Thr Phe Phe Asp Ala Asn Lys Thr Gly Gln Leu
 115 120 125
 Val Ser Arg Leu Thr Thr Asp Val Gln Glu Phe Lys Ser Ser Phe Lys
 130 135 140
 Leu Val Ile Ser Gln Gly Leu Arg Ser Cys Thr Gln Val Ala Gly Cys
 145 150 155 160
 Leu Val Ser Leu Ser Met Leu Ser Thr Arg Leu Thr Leu Leu Leu Met
 165 170 175
 Val Ala Thr Pro Ala Leu Met Gly Val Gly Thr Leu Met Gly Ser Gly
 180 185 190
 Leu Arg Lys Leu Ser Arg Gln Cys Gln Glu Gln Ile Ala Arg Ala Met
 195 200 205
 Gly Val Ala Asp Glu Ala Leu Gly Asn Val Arg Thr Val Arg Ala Phe
 210 215 220
 Ala Met Glu Gln Arg Glu Glu Glu Arg Tyr Gly Ala Glu Leu Glu Ala
 225 230 235 240
 Cys Arg Cys Arg Ala Glu Glu Leu Gly Arg Gly Ile Ala Leu Phe Gln
 245 250 255
 Gly Leu Ser Asn Ile Ala Phe Asn Cys Met Val Leu Gly Thr Leu Phe
 260 265 270
 Ile Gly Gly Ser Leu Val Ala Gly Gln Gln Leu Thr Gly Gly Asp Leu
 275 280 285
 Met Ser Phe Leu Val Ala Ser Gln Thr Val Gln Ser Phe Leu Arg Val
 290 295 300
 Ala Pro Cys Pro Asn Ser Leu Pro Leu Gln Ala Val Thr Leu His Ala
 305 310 315 320
 Trp Lys Asp His Pro

325

<210> 4337

<211> 461

<212> DNA

<213> Homo sapiens

<400> 4337

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60
acaaaggaga aaacaacatc tctagccggc cagcgtgcct gtccctccct cccgcagagg
120
cctgggagggc tgagggtgag gaaggccagc tgtgctggct gcagagggct ttgctgtttc
180
tccacagagc agcaggctgc cccttccctt ctccctccct ccacctcacc tccatgggct
240
ccactggatg ggaaccatgt gcttgttctc cccacccta gactgggatc tcttggggca
300
gaagaggctt cccaagtggc acagacagag ccaggctgac tgaatgtgag attcatgaat
360
gaacagtgat accaggcata gccctgccct ttagcatect gagggccacg tggagttttc
420
tgcaacactg cccgccgtgt tccagcatct gccttcact t
461

<210> 4338

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4338

Met	Asn	Leu	Thr	Phe	Ser	Gln	Pro	Gly	Ser	Val	Cys	Ala	Thr	Trp	Glu
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Ala	Ser	Ser	Ala	Pro	Gly	Asp	Pro	Ser	Leu	Gly	Val	Gly	Arg	Thr	Ser
			20					25					30		
Thr	Trp	Phe	Pro	Ser	Ser	Gly	Ala	His	Gly	Gly	Glu	Val	Glu	Gly	Gly
		35				40						45			
Arg	Arg	Glu	Gly	Ala	Thr	Cys	Cys	Ser	Val	Glu	Lys	Gln	Gln	Ser	Pro
	50					55					60				
Leu	Gln	Pro	Ala	Gln	Leu	Ala	Phe	Leu	Thr	Leu	Ser	Leu	Pro	Gly	Leu
65				70						75				80	
Cys	Gly	Arg	Glu	Gly	Gln	Ala	Arg	Trp	Pro	Ala	Arg	Asp	Val	Val	Phe
			85					90					95		
Ser	Phe	Val	Leu	Cys	Thr	Met	Pro	Gln	Lys	Asn	Ile	Leu	Leu	Ile	Cys
			100					105					110		
Asn	Gln	Asp	Asn	Ile	Ile										
			115												

<210> 4339

<211> 5269

<212> DNA

<213> Homo sapiens

<400> 4339

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120
cccagcccgg gagatggaaa tccaagagaa aacagcccat tcctcaacaa tgtcgagggtg
180
gaacaagaga gcttctttga agggaagaac atggcacttt tcgaggagga gatggacagt
240
aaccatgg tgctctcgt gctcaacaag ctggccaact acaccaacct gagccagggc
300
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360
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420
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480
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1320
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1380
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1620

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1680
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1740
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1800
cagacctgc tacgtacccc caactggcgt ccacgcttca agttctacca ctggacctg
1860
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1920
ctgtccgcca tgctcatcg tggtgcac tacaagtaca tcgagtaccg cggggccgag
1980
aaggagtggg gcgatggcat ccgtggccta tcctgaacg ccgcccgtta cgccctgctg
2040
cgcgtggagc acggtcccc ccacaccaag aactggaggc cccaggtgct ggtgatgctg
2100
aacctggacg cggagcaggc cgtgaagcac ccccgctgc tgccttcac gtcgcagctg
2160
aaggccggca agggcctgac catcgtgggc tcggtgctgg aggggacgta cctggacaag
2220
cacatggagg ctacgcgggc cgaggagaac atacggtccc taatgagcac agagaagacc
2280
aagggtctct gccagctggg ggtctcgctc agcctgcggg atggcatgtc ccacctgatc
2340
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2400
tggaagcagg aggacaaccc cttctcctgg aagaactttg tagacaccgt ccgcgacacc
2460
accgcgcgc accaggtctt gctggtggcc aagaacgtcg actcgtttcc gcaaaaccag
2520
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2580
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2640
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2700
ttgtatcact tgcgcatcag cgccgaggtg gaggtgggtg agatgggtga aaacgacata
2760
tctgctttca cctacgagag gacactaatg atggagcaga ggtcgcagat gctgaagcag
2820
atgcagctgt ccaagaacga gcaggagcga gaggcccagc tgatccacga caggaaaccc
2880
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2940
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3000
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3060
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4860

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5269

<210> 4340

<211> 1088

<212> PRT

<213> Homo sapiens

<400> 4340

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Gly	Gly	Asp	Glu	Thr	Ala	Glu	Arg	Thr	Glu	Ala	Pro	Gly	Thr	Pro	Glu
			20					25					30		
Gly	Pro	Glu	Pro	Glu	Arg	Pro	Ser	Pro	Gly	Asp	Gly	Asn	Pro	Arg	Glu
		35					40					45			
Asn	Ser	Pro	Phe	Leu	Asn	Asn	Val	Glu	Val	Glu	Gln	Glu	Ser	Phe	Phe
	50					55					60				
Glu	Gly	Lys	Asn	Met	Ala	Leu	Phe	Glu	Glu	Glu	Met	Asp	Ser	Asn	Pro
65					70					75					80
Met	Val	Ser	Ser	Leu	Leu	Asn	Lys	Leu	Ala	Asn	Tyr	Thr	Asn	Leu	Ser
				85					90					95	
Gln	Gly	Val	Val	Glu	His	Glu	Glu	Asp	Glu	Glu	Ser	Arg	Arg	Arg	Glu
			100					105					110		
Ala	Lys	Ala	Pro	Arg	Met	Gly	Thr	Phe	Ile	Gly	Val	Tyr	Leu	Pro	Cys
		115				120						125			
Leu	Gln	Asn	Ile	Leu	Gly	Val	Ile	Leu	Phe	Leu	Arg	Leu	Thr	Trp	Ile
	130					135					140				
Val	Gly	Val	Ala	Gly	Val	Leu	Glu	Ser	Phe	Leu	Ile	Val	Ala	Met	Cys
145					150					155				160	
Cys	Thr	Cys	Thr	Met	Leu	Thr	Ala	Ile	Ser	Met	Ser	Ala	Ile	Ala	Thr
				165					170					175	
Asn	Gly	Val	Val	Pro	Ala	Gly	Gly	Ser	Tyr	Tyr	Met	Ile	Ser	Arg	Ser
		180					185						190		
Leu	Gly	Pro	Glu	Phe	Gly	Gly	Ala	Val	Gly	Leu	Cys	Phe	Tyr	Leu	Gly
		195					200					205			
Thr	Thr	Phe	Ala	Gly	Ala	Met	Tyr	Ile	Leu	Gly	Thr	Ile	Glu	Ile	Phe
	210					215					220				
Leu	Thr	Tyr	Ile	Ser	Pro	Gly	Ala	Ala	Ile	Phe	Gln	Ala	Glu	Ala	Ala
225					230					235				240	
Gly	Gly	Glu	Ala	Ala	Ala	Met	Leu	His	Asn	Met	Arg	Val	Tyr	Gly	Thr
				245					250					255	
Cys	Thr	Leu	Val	Leu	Met	Ala	Leu	Val	Val	Phe	Val	Gly	Val	Lys	Tyr

260	265	270
Val Asn Lys Leu Ala Leu Val	Phe Leu Ala Cys Val Val	Leu Ser Ile
275	280	285
Leu Ala Ile Tyr Ala Gly Val	Ile Lys Ser Ala Phe Asp	Pro Pro Asp
290	295	300
Ile Pro Val Cys Leu Leu Gly	Asn Arg Thr Leu Ser Arg	Arg Ser Phe
305	310	315
Asp Ala Cys Val Lys Ala Tyr	Gly Ile His Asn Asn Ser	Ala Thr Ser
325	330	335
Ala Leu Trp Gly Leu Phe Cys	Asn Gly Ser Gln Pro Ser	Ala Ala Cys
340	345	350
Asp Glu Tyr Phe Ile Gln Asn	Asn Val Thr Glu Ile Gln	Gly Ile Pro
355	360	365
Gly Ala Ala Ser Gly Val Phe	Leu Glu Asn Leu Trp Ser	Thr Tyr Ala
370	375	380
His Ala Gly Ala Phe Val Glu	Lys Lys Gly Val Pro Ser	Val Pro Val
385	390	395
Ala Glu Glu Ser Arg Ala Ser	Ala Leu Pro Tyr Val Leu	Thr Asp Ile
405	410	415
Ala Ala Ser Phe Thr Leu Leu	Val Gly Ile Tyr Phe Pro	Ser Val Thr
420	425	430
Gly Ile Met Ala Gly Ser Asn	Arg Ser Gly Asp Leu Lys	Asp Ala Gln
435	440	445
Lys Ser Ile Pro Thr Gly Thr	Ile Leu Ala Ile Val Thr	Thr Ser Phe
450	455	460
Ile Tyr Leu Ser Cys Ile Val	Leu Phe Gly Ala Cys Ile	Glu Gly Val
465	470	475
Val Leu Arg Asp Lys Phe Gly	Glu Ala Leu Gln Gly Asn	Leu Val Ile
485	490	495
Gly Met Leu Ala Trp Pro Ser	Pro Trp Val Ile Val Ile	Gly Ser Phe
500	505	510
Phe Ser Thr Cys Gly Ala Gly	Leu Gln Thr Leu Thr Gly	Ala Pro Arg
515	520	525
Leu Leu Gln Ala Ile Ala Arg	Asp Gly Ile Val Pro Phe	Leu Gln Val
530	535	540
Phe Gly His Gly Lys Ala Asn	Gly Glu Pro Thr Trp Ala	Leu Leu Leu
545	550	555
Thr Val Leu Ile Cys Glu Thr	Gly Ile Leu Ile Ala Ser	Leu Asp Ser
565	570	575
Val Ala Pro Ile Leu Ser Met	Phe Phe Leu Met Cys Tyr	Leu Phe Val
580	585	590
Asn Leu Ala Cys Ala Val Gln	Thr Leu Leu Arg Thr Pro	Asn Trp Arg
595	600	605
Pro Arg Phe Lys Phe Tyr His	Trp Thr Leu Ser Phe Leu	Gly Met Ser
610	615	620
Leu Cys Leu Ala Leu Met Phe	Ile Cys Ser Trp Tyr Tyr	Ala Leu Ser
625	630	635
Ala Met Leu Ile Ala Gly Cys	Ile Tyr Lys Tyr Ile Glu	Tyr Arg Gly
645	650	655
Ala Glu Lys Glu Trp Gly Asp	Gly Ile Arg Gly Leu Ser	Leu Asn Ala
660	665	670
Ala Arg Tyr Ala Leu Leu Arg	Val Glu His Gly Pro Pro	His Thr Lys
675	680	685
Asn Trp Arg Pro Gln Val Leu	Val Met Leu Asn Leu Asp	Ala Glu Gln

690	695	700
Ala Val Lys His Pro Arg Leu Leu Ser Phe Thr Ser Gln Leu Lys Ala		
705	710	715
Gly Lys Gly Leu Thr Ile Val Gly Ser Val Leu Glu Gly Thr Tyr Leu		
	725	730
Asp Lys His Met Glu Ala Gln Arg Ala Glu Glu Asn Ile Arg Ser Leu		
	740	745
Met Ser Thr Glu Lys Thr Lys Gly Phe Cys Gln Leu Val Val Ser Ser		
	755	760
Ser Leu Arg Asp Gly Met Ser His Leu Ile Gln Ser Ala Gly Leu Gly		
	770	775
Gly Leu Lys His Asn Thr Val Leu Met Ala Trp Pro Ala Ser Trp Lys		
785	790	795
Gln Glu Asp Asn Pro Phe Ser Trp Lys Asn Phe Val Asp Thr Val Arg		
	805	810
Asp Thr Thr Ala Ala His Gln Ala Leu Leu Val Ala Lys Asn Val Asp		
	820	825
Ser Phe Pro Gln Asn Gln Glu Arg Phe Gly Gly Gly His Ile Asp Val		
	835	840
Trp Trp Ile Val His Asp Gly Gly Met Leu Met Leu Leu Pro Phe Leu		
	850	855
Leu Arg Gln His Lys Val Trp Arg Lys Cys Arg Met Arg Ile Phe Thr		
865	870	875
Val Ala Gln Val Asp Asp Asn Ser Ile Gln Met Lys Lys Asp Leu Gln		
	885	890
Met Phe Leu Tyr His Leu Arg Ile Ser Ala Glu Val Glu Val Val Glu		
	900	905
Met Val Glu Asn Asp Ile Ser Ala Phe Thr Tyr Glu Arg Thr Leu Met		
	915	920
Met Glu Gln Arg Ser Gln Met Leu Lys Gln Met Gln Leu Ser Lys Asn		
	930	935
Glu Gln Glu Arg Glu Ala Gln Leu Ile His Asp Arg Asn Thr Ala Ser		
945	950	955
His Thr Ala Ala Ala Ala Arg Thr Gln Ala Pro Pro Thr Pro Asp Lys		
	965	970
Val Gln Met Thr Trp Thr Arg Glu Lys Leu Ile Ala Glu Lys Tyr Arg		
	980	985
Ser Arg Asp Thr Ser Leu Ser Gly Phe Lys Asp Leu Phe Ser Met Lys		
	995	1000
Pro Glu Trp Gly Asn Leu Asp Gln Ser Asn Val Arg Arg Met His Thr		
	1010	1015
Ala Val Lys Leu Asn Gly Val Val Leu Asn Lys Ser Gln Asp Ala Gln		
1025	1030	1035
Leu Val Leu Leu Asn Met Pro Gly Pro Pro Lys Asn Arg Gln Gly Asp		
	1045	1050
Glu Asn Tyr Met Glu Phe Leu Glu Val Leu Thr Glu Gly Leu Asn Arg		
	1060	1065
Val Leu Leu Val Arg Gly Gly Gly Arg Glu Val Ile Thr Ile Tyr Ser		
	1075	1080
		1085

<210> 4341

<211> 693

<212> DNA

<213> Homo sapiens

<400> 4341
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 120
 gacctgaggg agccatatgc atcaagtgag tgtttctcca taacagaata tttataagag
 180
 aacatgtata gtgccctctt ttgagtgatg cgcacagaca ccaagccctc cttttcacca
 240
 agtcccaggc ttgcattcca gcctcttgag ctctgccctc tctcaggtgg atctttgtgt
 300
 tggaccttac gtttcagcaa cctcaccatg gccacataac ccacaacctt ttaaaacagt
 360
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 420
 tttatctgat ctgcacactt tatatccagc tgttttggca cttttacgtt ttcttcacct
 480
 ttggtttttg tttgcaaatt cttacacctt ctctccaagc ggagggcaca ctgtggtcaa
 540
 aatcacttat tttattagga aaaagaggta actgttccaa agtgtagtgt cctttgttga
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<210> 4342
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 4342
 Met Val Arg Leu Leu Lys Arg Lys Val Gln His Lys Asp Pro Pro Glu
 1 5 10 15
 Arg Gly Gln Ser Ser Arg Gly Trp Asn Ala Ser Leu Gly Leu Gly Glu
 20 25 30
 Lys Glu Gly Leu Val Ser Val Gly Ile Thr Gln Lys Arg Ala Leu Tyr
 35 40 45
 Met Phe Ser Tyr Lys Tyr Ser Val Met Glu Lys His Ser Leu Asp Ala
 50 55 60
 Tyr Gly Ser Leu Arg Ser Phe Phe Phe His Pro Leu Phe Leu Glu Lys
 65 70 75 80
 Lys Phe Phe Lys Ala Tyr Asn Leu Lys Ser Thr Ser Thr Tyr Ser Arg
 85 90 95
 Asn Ile Val Ala Phe Ser Ile
 100

<210> 4343
 <211> 499
 <212> DNA
 <213> Homo sapiens

<400> 4343

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 120
 ttcagaacag ggcgcccgac gttggggcgcg tggacagagt cctccggcgg ccgcgccgct
 180
 gggccaggcg gagagaggcg gacggacttc aggggaggcc cgggccacgc cgcggaaact
 240
 acccgactcc ctggaggcgg ccaggaccga ccctgtcccg acaaaatgga gttccccgtg
 300
 tggcttcagc tcgcggcgcg ttcccagagc tcctcagtga tccggctttc ggattgttcg
 360
 cctttcatct catttgccgt tgtccaaatt ctaatttaaa actcatgtgt tacttgctgt
 420
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 480
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 499

<210> 4344

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4344

Met	Ala	Pro	Ser	Arg	Pro	Arg	Leu	Pro	Pro	Ser	Pro	Pro	Gln	Arg	Leu
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Arg	Val	Val	Arg	Gly	Arg	Gly	Pro	Phe	Ala	Phe	Arg	Thr	Gly	Arg	Pro
			20				25						30		
Thr	Leu	Gly	Ala	Trp	Thr	Glu	Ser	Ser	Gly	Gly	Arg	Ala	Ala	Gly	Pro
		35				40					45				
Gly	Gly	Glu	Arg	Arg	Thr	Asp	Phe	Arg	Gly	Gly	Pro	Gly	His	Ala	Ala
	50				55					60					
Glu	Thr	Thr	Arg	Leu	Pro	Gly	Gly	Gly	Gln	Asp	Arg	Pro	Cys	Pro	Asp
65				70				75						80	
Lys	Met	Glu	Phe	Pro	Val	Trp	Leu	Gln	Leu	Ala	Ala	Arg	Ser	Gln	Ser
			85				90							95	
Ser	Ser	Val	Ile	Arg	Leu	Ser	Asp	Cys	Ser	Pro	Phe	Ile	Ser	Phe	Ala
			100				105						110		
Val	Val	Gln	Ile	Leu	Ile										
			115												

<210> 4345

<211> 349

<212> DNA

<213> Homo sapiens

<400> 4345

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 120
 cgtctgcatg agcagaagct ggtgcagcat gtggtgtctc agaactgtga cgggctccac
 180

ctgaggagtg ggctgncgcg cacggccatc tccgagctcc acggaacat gtacattgaa
 240
 ggagtacgtg cgggtgttcg atgtgacgga ggcactgcc ctccacagac accagacagg
 300
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 349

<210> 4346
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 4346
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 Gln Lys Gly Arg Ser Val Ser Ala Ala Asp Xaa Glu Arg Ala Glu Pro
 20 25 30
 Thr Leu Thr His Met Ser Ile Thr Arg Leu His Glu Gln Lys Leu Val
 35 40 45
 Gln His Val Val Ser Gln Asn Cys Asp Gly Leu His Leu Arg Ser Gly
 50 55 60
 Leu Xaa Arg Thr Ala Ile Ser Glu Leu His Gly Asn Met Tyr Ile Glu
 65 70 75 80
 Gly Val Arg Ala Gly Val Arg Cys Asp Gly Ala His Cys Pro Pro Gln
 85 90 95
 Thr Pro Asp Arg Pro Asp Leu Pro Gln Val Trp Asp Pro Ala Ala Gly
 100 105 110
 His His Cys Ala
 115

<210> 4347
 <211> 353
 <212> DNA
 <213> Homo sapiens

<400> 4347
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 120
 ccccggggct cgcgcgacgc gggctccagct gcacaaagcc gtccgctccg tcccgccgag
 180
 gccaggcagt gcagaggcag gagccgccgt cgggtagcga gatcttact gccgagccca
 240
 agcgcgcgcc cagggcggtg agggcgggccg ggcccaggcg gcagcgctgg gtgccccggt
 300
 ctctagcgtc taagggtagc agctttaaga gcggcccttc agggaaggga tcc
 353

<210> 4348
 <211> 72
 <212> PRT
 <213> Homo sapiens

<400> 4348

Asp Ser Ser Gly Ile Ser Thr Pro Arg Pro Pro Pro Arg Gly Ser Arg
 1 5 10 15
 Ala Ala Gly Pro Ala Ala Gln Ser Arg Pro Leu Arg Pro Ala Glu Ala
 20 25 30
 Arg Gln Cys Arg Gly Arg Ser Arg Arg Arg Val Ala Arg Ser Ser Leu
 35 40 45
 Pro Ser Pro Ser Ala Arg Pro Gly Arg Gly Gly Arg Pro Gly Pro Gly
 50 55 60
 Gly Ser Ala Gly Cys Pro Gly Leu
 65 70

<210> 4349

<211> 2040

<212> DNA

<213> Homo sapiens

<400> 4349

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 120
 ctcaccggca ccagggccctc gtgtggcccc cgactctggc acggaacctg ccctagtggc
 180
 caacatggac ctggggccac cctgctggcc gagggtcagg gtcctctgtg caggcagtgg
 240
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 300
 agcggacagc acggggccggg gcagacagag caggggaccct agggccacag accggtacag
 360
 ggttccacca cccggggaca caggcccaag caccgtgcca ctaagatggg gtctgcagag
 420
 gcaaagcctt gctgcagcct ctcccactct gcgaggatgg cgggggtctg ctatgtgggt
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 720
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 780
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 840
 cacgtgggaa ccacggcctc aagagccaca ggctgagctg cggggagggt gggctgaggg
 900
 gccaccactg gtcaccgggt ggattctgct ggtcagagat gagagcagaa gcccctagct
 960
 gcctcaggca ctggaggggt gggcagggag ctggtgcttc aagaattgag ggcagggaca
 1020
 cgaccacctc agggccctgc agtgctggct ggggaagcaa gcttttacac acggcccgcc
 1080

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 1200
 cctcctcaca accaccgcga acgcgttcgg atgccctca gctccaggca ccatgcccc
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 1320
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 1440
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 1500
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 1560
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 1620
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 1680
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 1740
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 1800
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 1860
 gtgacggagg gacaggtccc tgagacgctg ggtggctccc accctcagc aaacaaggac
 1920
 gcaacaacag ctaggaaaat agaatacaaa aatctggtac aggaaacaga ggcggcacag
 1980
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 2040

<210> 4350

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4350

Xaa	Phe	Phe	Phe	Leu	Arg	Tyr	Lys	Asn	Leu	Tyr	Leu	Tyr	Tyr	Asn	Asp
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Ile	Arg	Thr	Gln	His	Gly	Pro	His	Gly	Gly	Gln	Val	Ala	Gly	Gly	Pro
			20					25					30		
Phe	Pro	Pro	Leu	Ala	His	Ala	Pro	Leu	Thr	Gly	Thr	Arg	Pro	Ser	Cys
		35					40					45			
Gly	Pro	Arg	Leu	Trp	His	Gly	Thr	Cys	Pro	Ser	Ala	Gln	His	Gly	Pro
	50					55					60				
Gly	Ala	Thr	Leu	Leu	Ala	Glu	Gly	Gln	Gly	Pro	Leu	Cys	Arg	Gln	Trp
65					70					75				80	
Gly	Gly	Gly	Pro	Arg	Phe	Pro	Asp	Arg	Gly	Arg	Gln	Gly	Thr	Gly	Glu
				85					90					95	
Pro	Ala	Ser	Pro	Ser	Gly	Gln	His	Gly	Pro	Gly	Gln	Thr	Glu	Gln	Gly
			100					105					110		

Pro

<210> 4351
<211> 4703
<212> DNA
<213> Homo sapiens

<400> 4351
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agactaatcc ataacaaatt aagttatact gtatttcctt tgctaccag aaccacaggg
120
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Thr Cys Val Gln Leu Cys His Phe His Ser Ala Leu Leu His Arg Arg
      20              25              30
Gln Lys Pro Trp Pro Ser Pro Ala Val Phe Phe Arg Arg Asn Val Arg
      35              40              45
Gly Leu Pro Pro Arg Phe Ser Ser Pro Thr Pro Leu Trp Arg Lys Val
      50              55              60
Leu Ser Thr Ala Val Val Gly Ala Pro Leu Leu Gly Ala Arg Tyr
65              70              75              80
Val Met Ala Glu Ala Arg Glu Lys Arg Arg Met Arg Leu Val Val Asp
      85              90              95
Gly Met Gly Arg Phe Cys Arg Ser Leu Lys Val Gly Leu Gln Ile Ser
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Leu Asp Tyr

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115

<210> 4359

<211> 3661

<212> DNA

<213> Homo sapiens

<400> 4359

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1380

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2760
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3000

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 3661

<210> 4360
 <211> 670
 <212> PRT
 <213> Homo sapiens

<400> 4360
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 Thr Phe Gly Pro Ala Phe Ser Ala Val Thr Thr Ile Thr Lys Ala Asp
 35 40 45
 Gly Thr Ser Thr Tyr Lys Gln His Cys Arg Thr Pro Ser Ser Ser Ser
 50 55 60
 Thr Leu Ala Tyr Ser Pro Arg Asp Glu Glu Asp Ser Met Pro Pro Ile
 65 70 75 80
 Ser Thr Pro Arg Arg Ser Asp Ser Ala Ile Ser Val Arg Ser Leu His
 85 90 95
 Ser Glu Ser Ser Met Ser Leu Arg Ser Thr Phe Ser Leu Pro Glu Glu
 100 105 110
 Glu Glu Glu Pro Glu Pro Leu Val Phe Ala Glu Gln Pro Ser Val Lys
 115 120 125
 Leu Cys Cys Gln Leu Cys Cys Ser Val Phe Lys Asp Pro Val Ile Thr
 130 135 140
 Thr Cys Gly His Thr Phe Cys Arg Arg Cys Ala Leu Lys Ser Glu Lys
 145 150 155 160
 Cys Pro Val Asp Asn Val Lys Leu Thr Val Val Val Asn Asn Ile Ala
 165 170 175
 Val Ala Glu Gln Ile Gly Glu Leu Phe Ile His Cys Arg His Gly Cys

3555

610	615	620
Leu Arg Val Trp Ser Met Asp Asn Met Ile Cys Thr Gln Thr Leu Leu		
625	630	635
Arg His Gln Gly Ser Val Thr Ala Leu Ala Val Ser Arg Gly Arg Leu		640
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Phe Ser Gly Ala Val Asp Ser Thr Val Lys Val Trp Thr Cys		655
660	665	670

<210> 4361
 <211> 574
 <212> DNA
 <213> Homo sapiens

<400> 4361
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 420
 gtacacaaaa ttactcatct taccatagat gtatctgtgg ggtctggatt tagggctgag
 480
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<210> 4362
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 4362
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 20 25 30
 Asp Met Gln Gln His Glu Cys Ala Met Ser Trp Arg Ala His Tyr Gly
 35 40 45
 Glu Val Tyr Ser Val Glu Phe Ser Tyr Asp Glu Asn Thr Val Tyr Ser
 50 55 60
 Ile Gly Glu Asp Gly Lys Val Gly Gly Ser Arg Ile Gln Ile Arg Glu
 65 70 75 80
 His Arg Asp Asp Met Trp Ala Gly Cys Arg Leu Trp Pro Tyr Leu Leu
 85 90 95
 Leu Ala Leu Gln Pro Gly Ala Ser Phe Cys Ser Phe Val Ile Cys Arg

100
Ile Gly Ile Asn
115

105

110

<210> 4363
<211> 1222
<212> DNA
<213> Homo sapiens

<400> 4363
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120
agctatgacc ccagggccag ggaattcagt cccaccaga ccctgtcatt ccatcactag
180
ggggtaatc caggtcccc ctgccagccc tgagacagga ggacggatgt gaagttgccc
240
aggactagat tctgtctctc caaagtggcc caagccctgt tctctgtact agggaaagcca
300
gctgtgtctt ttcgaggaca gttgggtccag ccagcaggct cagttcagat accagacaac
360
cattccagca cgagggtcga gcgccctggc cccggcggtc gctccagtgc ctgtgtgccc
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cccggcccat cctcagggcc tggtttgagg ccctcagagg ctggtgcccc aagttcattg
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720
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780
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840
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960
gagctagagg ccacggccgg gggtgctgt gccaccgctg cgtggccagg atctagccac
1020
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1222

<210> 4364

<211> 75
 <212> PRT
 <213> Homo sapiens

<400> 4364

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Asp Arg Arg Thr Asp Val Lys Leu Pro Arg Thr Arg Phe Cys Leu Ser
 1           5           10           15
Lys Val Ala Gln Ala Leu Phe Ser Val Leu Gly Lys Pro Ala Val Ser
           20           25           30
Phe Arg Gly Gln Leu Val Gln Pro Ala Gly Ser Val Gln Ile Pro Asp
           35           40           45
Asn His Ser Ser Thr Arg Ala Gln Arg Pro Gly Pro Gly Gly Arg Ser
           50           55           60
Ser Ala Cys Val Pro Thr Ser Thr Ser Met Arg
65           70           75

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<210> 4365
 <211> 469
 <212> DNA
 <213> Homo sapiens

<400> 4365

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gtcaccgacg acatcaagcc ggggtgtggcg attggcggtta cgtcgttccc gacctactac
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cgcagcatgt acccgaaaga agtgatcatg accggcgaca tgatgctgga aaaggtctat
240
cgcgagggcg acaagctggt ggcgggtgctg gagaacgaat acaccggcgc caaggaagag
300
cgggtggtcg accaggtggt ggtggagaac ggtgtgcgtc cggatgagga aatctactac
360
gggctcaagg aagggttcg cg caacaagggc cagatcgatg tcgaagccct gttcgcgatc
420
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469

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<210> 4366
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 4366

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Asp Val Leu Asp Gly Lys Val Ala Pro Gly Lys Asn Val Pro Val Tyr
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Asp Thr Ile Cys Glu Phe Thr Gly Met Ser Val Ala Asp Phe Leu Ala
           20           25           30
Asp Lys Gly Ser Gln Val Glu Ile Val Thr Asp Asp Ile Lys Pro Gly
           35           40           45
Val Ala Ile Gly Gly Thr Ser Phe Pro Thr Tyr Tyr Arg Ser Met Tyr
           50           55           60
Pro Lys Glu Val Ile Met Thr Gly Asp Met Met Leu Glu Lys Val Tyr

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65          70          75          80
Arg Glu Gly Asp Lys Leu Val Ala Val Leu Glu Asn Glu Tyr Thr Gly
          85          90          95
Ala Lys Glu Glu Arg Val Val Asp Gln Val Val Val Glu Asn Gly Val
          100          105          110
Arg Pro Asp Glu Glu Ile Tyr Tyr Gly Leu Lys Glu Gly Ser Arg Asn
          115          120          125
Lys Gly Gln Ile Asp Val Glu Ala Leu Phe Ala Ile Lys Pro Gln Pro
          130          135          140
Ser Leu Asn Thr Leu Asn Glu Glu Ala Ala Gly Asp
145          150          155

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<210> 4367
 <211> 852
 <212> DNA
 <213> Homo sapiens

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<400> 4367
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120
atctacgaga ctccccgggg cccagaccca gccctcctgg aggccacagg gggagcagct
180
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240
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300
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360
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660
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720
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852

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<210> 4368
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 4368

Xaa Leu Gly Arg Gly Met Ala Leu Arg Asp Cys Thr Arg Arg Lys Glu
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 20 25 30
 Phe Glu Glu Thr Leu Asn Ile Leu Ile Tyr Glu Thr Pro Arg Gly Pro
 35 40 45
 Asp Pro Ala Leu Leu Glu Ala Thr Gly Gly Ala Ala Gly Ala Gly Gly
 50 55 60
 Ala Gly Arg Gly Glu Asp Glu Glu Asn Arg Glu His Arg Val Arg Arg
 65 70 75 80
 Ile His Val Arg Arg His Ile Thr His Asp Glu Arg Pro His Gly Gln
 85 90 95
 Gln Ile Val Phe Lys Asp
 100

<210> 4369

<211> 1264

<212> DNA

<213> Homo sapiens

<400> 4369

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 120
 actacagaaa aggaagtagc agaaccactc ctggacctga aggaaggaat agaccagttg
 180
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 240
 aatggaacta atgcaaagc gtttgagtta agctacctcg agaagggtcc agaagtcaaa
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 780
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 960

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 1080
 aatctgatta gcttcacaga ctgagtctcc acaacaccaa aatatccaga tgtaaaccct
 1140
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 tgcc
 1264

<210> 4370
 <211> 322
 <212> PRT
 <213> Homo sapiens

<400> 4370
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 Trp Ala Phe Lys Met Asp Tyr Glu Thr Thr Glu Lys Glu Val Ala Glu
 35 40 45
 Pro Leu Leu Asp Leu Lys Glu Gly Ile Asp Gln Leu Glu Asn Asn Lys
 50 55 60
 Thr Leu Gly Phe Ile Leu Ser Thr Leu Leu Ala Ile Gly Asn Phe Leu
 65 70 75 80
 Asn Gly Thr Asn Ala Lys Ala Phe Glu Leu Ser Tyr Leu Glu Lys Val
 85 90 95
 Pro Glu Val Lys Asp Thr Val His Lys Gln Ser Leu Leu His His Val
 100 105 110
 Cys Thr Met Val Val Glu Asn Phe Pro Asp Ser Ser Asp Leu Tyr Ser
 115 120 125
 Glu Ile Gly Ala Ile Thr Arg Ser Ala Lys Val Asp Phe Asp Gln Leu
 130 135 140
 Gln Asp Asn Leu Cys Gln Met Glu Arg Arg Cys Lys Ala Ser Trp Asp
 145 150 155 160
 His Leu Lys Ala Ile Ala Lys His Glu Met Lys Pro Val Leu Lys Gln
 165 170 175
 Arg Met Ser Glu Phe Leu Lys Asp Cys Ala Glu Arg Ile Ile Ile Leu
 180 185 190
 Lys Ile Val His Arg Arg Ile Ile Asn Arg Phe His Ser Phe Leu Leu
 195 200 205
 Phe Met Gly His Pro Pro Tyr Ala Ile Arg Glu Val Asn Ile Asn Lys
 210 215 220
 Phe Cys Arg Ile Ile Ser Glu Phe Ala Leu Glu Tyr Arg Thr Thr Arg
 225 230 235 240
 Glu Arg Val Leu Gln Lys Gln Lys Arg Ala Asn His Arg Glu Arg
 245 250 255
 Asn Lys Thr Arg Gly Lys Met Ile Thr Asp Ser Gly Lys Phe Ser Gly
 260 265 270
 Ser Ser Pro Ala Pro Pro Ser Gln Pro Gln Gly Leu Ser Tyr Ala Glu

	275		280		285										
Asp	Ala	Ala	Glu	His	Glu	Asn	Met	Lys	Ala	Val	Leu	Lys	Thr	Ser	Ser
	290		295		300										
Pro	Ser	Arg	Ser	Pro	Leu	His	Ile	Pro	Ser	Pro	Ser	Cys	Gln	Leu	Cys
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Phe	Ser														

<210> 4371
 <211> 907
 <212> DNA
 <213> Homo sapiens

<400> 4371
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 180
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 240
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 300
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 360
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 420
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 480
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 540
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 720
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 780
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 840
 aagtcggcca ccgccgacca agagttctcc aaagaagaca tggcgaagag cctgctgcac
 900
 atgatca
 907

<210> 4372
 <211> 302
 <212> PRT
 <213> Homo sapiens

<400> 4372
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Asn Leu Glu Asn Ala Lys Arg Phe Ala Ile Asp Ile Gly Gly Ser Leu
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Thr Lys Leu Ala Tyr Tyr Ser Thr Val Gln His Lys Val Ala Lys Val
      50           55           60
Arg Ser Phe Asp His Ser Gly Lys Asp Thr Glu Arg Glu His Glu Pro
      65           70           75           80
Pro Tyr Glu Ile Ser Val Gln Glu Glu Ile Thr Ala Arg Leu His Phe
      85           90           95
Ile Lys Phe Glu Asn Thr Tyr Ile Glu Ala Cys Leu Asp Phe Ile Lys
      100          105          110
Asp His Leu Val Asn Thr Glu Thr Lys Val Ile Gln Ala Thr Gly Gly
      115          120          125
Gly Ala Tyr Lys Phe Lys Asp Leu Ile Glu Glu Lys Leu Arg Leu Lys
      130          135          140
Val Asp Lys Glu Asp Val Met Thr Cys Leu Ile Lys Gly Cys Asn Phe
      145          150          155          160
Val Leu Lys Asn Ile Pro His Glu Ala Phe Val Tyr Gln Lys Asp Ser
      165          170          175
Asp Pro Glu Phe Arg Phe Gln Thr Asn His Pro His Ile Phe Pro Tyr
      180          185          190
Leu Leu Val Asn Ile Gly Ser Gly Val Ser Ile Val Lys Val Glu Thr
      195          200          205
Glu Asp Arg Phe Glu Trp Val Gly Gly Ser Ser Ile Gly Gly Gly Thr
      210          215          220
Phe Trp Gly Leu Gly Ala Leu Leu Thr Lys Thr Lys Lys Phe Asp Glu
      225          230          235          240
Leu Leu His Leu Ala Ser Arg Gly Gln His Ser Asn Val Asp Met Leu
      245          250          255
Val Arg Asp Val Tyr Gly Gly Ala His Gln Thr Leu Gly Leu Ser Gly
      260          265          270
Asn Leu Ile Ala Ser Ser Phe Gly Lys Ser Ala Thr Ala Asp Gln Glu
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<210> 4373

<211> 1017

<212> DNA

<213> Homo sapiens

<400> 4373

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240
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300

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 420
 tccgagacat tgaagaggca attccaaggg aaattgaagc caatgacatc gtgttttctg
 480
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 780
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 900
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<210> 4374

<211> 272

<212> PRT

<213> Homo sapiens

<400> 4374

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			20					25					30		
Gly	Leu	Ile	Ala	Pro	Gly	Pro	Thr	Thr	Ala	Val	Ser	Tyr	Met	Ser	Val
		35					40					45			
Lys	Cys	Val	Asp	Ala	Arg	Lys	Asn	His	His	Lys	Thr	Lys	Trp	Phe	Val
	50					55					60				
Pro	Trp	Gly	Pro	Asn	His	Cys	Asp	Lys	Ile	Arg	Asp	Ile	Glu	Glu	Ala
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Ile	Pro	Arg	Glu	Ile	Glu	Ala	Asn	Asp	Ile	Val	Phe	Ser	Val	His	Ile
			85					90						95	
Pro	Leu	Pro	His	Met	Glu	Met	Ser	Pro	Trp	Phe	Gln	Phe	Met	Leu	Phe
		100						105					110		
Ile	Leu	Gln	Leu	Asp	Ile	Ala	Phe	Lys	Leu	Asn	Asn	Gln	Ile	Arg	Glu
		115					120					125			
Asn	Ala	Glu	Val	Ser	Met	Asp	Val	Ser	Leu	Ala	Tyr	Arg	Asp	Asp	Ala
	130					135					140				
Phe	Ala	Glu	Trp	Thr	Glu	Met	Ala	His	Glu	Arg	Val	Pro	Arg	Lys	Leu
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Lys	Cys	Thr	Phe	Thr	Ser	Pro	Lys	Thr	Pro	Glu	His	Glu	Gly	Arg	Tyr
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Tyr	Glu	Cys	Asp	Val	Leu	Pro	Phe	Met	Glu	Ile	Gly	Ser	Val	Ala	His

<400>	4375					
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180						
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gtccgtggcc	gccgggtgcc	catccttatg	gtgacctcag	gcgggtacca	gaagcgcaca	
1080						

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<210> 4376

<211> 399

<212> PRT

<213> Homo sapiens

<400> 4376

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			20					25					30		
Val	Pro	His	Ser	Ser	Ser	Thr	Phe	Arg	Leu	Thr	Ala	Ser	Phe	Gly	Arg
		35					40				45				
Ala	Gly	Pro	Gly	Met	Leu	His	Thr	Thr	Gln	Leu	Tyr	Gln	His	Val	Pro
	50					55					60				
Glu	Thr	Arg	Trp	Pro	Ile	Val	Tyr	Ser	Pro	Arg	Tyr	Asn	Ile	Thr	Phe
65					70					75				80	
Met	Gly	Leu	Glu	Lys	Leu	His	Pro	Phe	Asp	Ala	Gly	Lys	Trp	Gly	Lys
				85					90					95	
Val	Ile	Asn	Phe	Leu	Lys	Glu	Glu	Lys	Leu	Leu	Ser	Asp	Ser	Met	Leu
			100					105					110		
Val	Glu	Ala	Arg	Glu	Ala	Ser	Glu	Glu	Asp	Leu	Leu	Val	Val	His	Thr
	115						120					125			
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Thr	Glu	Ile	Pro	Pro	Val	Ile	Phe	Leu	Pro	Asn	Phe	Leu	Val	Gln	Arg
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Lys	Val	Leu	Arg	Pro	Leu	Arg	Thr	Gln	Thr	Gly	Gly	Thr	Ile	Met	Ala
				165						170					175
Gly	Lys	Leu	Ala	Val	Glu	Arg	Gly	Trp	Ala	Ile	Asn	Val	Gly	Gly	Gly
			180					185					190		
Phe	His	His	Cys	Ser	Ser	Asp	Arg	Gly	Gly	Gly	Phe	Cys	Ala	Tyr	Ala
		195					200					205			
Asp	Ile	Thr	Leu	Ala	Ile	Lys	Phe	Leu	Phe	Glu	Arg	Val	Glu	Gly	Ile
	210					215					220				
Ser	Arg	Ala	Thr	Ile	Ile	Asp	Leu	Asp	Ala	His	Gln	Gly	Asn	Gly	His
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Glu	Arg	Asp	Phe	Met	Asp	Asp	Lys	Cys	Val	Thr	Cys	Met	Asp	Val	Tyr
			245						250					255	
Asn	Arg	His	Ile	Tyr	Pro	Gly	Asp	Arg	Phe	Ala	Lys	Gln	Ala	Ile	Arg
		260					265						270		
Arg	Lys	Val	Glu	Leu	Glu	Trp	Gly	Thr	Glu	Asp	Asp	Glu	Tyr	Leu	Asp
	275					280						285			
Lys	Val	Glu	Arg	Asn	Ile	Lys	Lys	Ser	Leu	Gln	Glu	His	Leu	Pro	Asp
	290					295				300					
Val	Val	Val	Tyr	Asn	Ala	Gly	Thr	Asp	Ile	Leu	Glu	Gly	Asp	Arg	Leu
305					310					315					320
Gly	Gly	Leu	Ser	Ile	Ser	Pro	Ala	Gly	Ile	Val	Lys	Arg	Asp	Glu	Leu
			325					330						335	
Val	Phe	Arg	Met	Val	Arg	Gly	Arg	Arg	Val	Pro	Ile	Leu	Met	Val	Thr
		340					345					350			
Ser	Gly	Gly	Tyr	Gln	Lys	Arg	Thr	Ala	Arg	Ile	Ile	Ala	Asp	Ser	Ile
	355					360						365			
Leu	Asn	Leu	Phe	Gly	Leu	Gly	Leu	Ile	Gly	Pro	Glu	Ser	Pro	Ser	Val
	370				375					380					
Ser	Ala	Gln	Asn	Ser	Asp	Thr	Pro	Leu	Leu	Pro	Pro	Ala	Val	Pro	
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<210> 4377

<211> 812

<212> DNA

<213> Homo sapiens

<400> 4377

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<213> Homo sapiens
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<210> 4379
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<212> DNA

<213> Homo sapiens

<400> 4379

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720
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<210> 4380

<211> 652

<212> PRT

<213> Homo sapiens

<400> 4380

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			20					25					30		
Arg	Gly	Ala	Leu	Arg	Thr	Leu	Ser	Leu	Leu	Ala	Ala	Gln	Gly	Leu	Trp
		35					40					45			
Ala	Gln	Thr	Ser	Val	Leu	His	Arg	Glu	Asp	Leu	Glu	Arg	Leu	Gly	Val
	50					55					60				
Gln	Glu	Ser	Asp	Leu	Arg	Leu	Phe	Leu	Asp	Gly	Asp	Ile	Leu	Arg	Gln
65				70					75					80	
Asp	Arg	Val	Ser	Lys	Gly	Cys	Tyr	Ser	Phe	Ile	His	Leu	Ser	Phe	Gln
				85					90					95	
Gln	Phe	Leu	Thr	Ala	Leu	Phe	Tyr	Thr	Leu	Glu	Lys	Glu	Glu	Glu	Glu
			100					105					110		
Asp	Arg	Asp	Gly	His	Thr	Trp	Asp	Ile	Gly	Asp	Val	Gln	Lys	Leu	Leu
		115					120					125			
Ser	Gly	Val	Glu	Arg	Leu	Arg	Asn	Pro	Asp	Leu	Ile	Gln	Ala	Gly	Tyr

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Tyr Ser Phe Gly Leu Ala Asn Glu Lys Arg Ala Lys Glu Leu Glu Ala				
145		150		155
Thr Phe Gly Cys Arg Met Ser Pro Asp Ile Lys Gln Glu Leu Leu Arg				160
	165		170	175
Cys Asp Ile Ser Cys Lys Gly Gly His Ser Thr Val Thr Asp Leu Gln				
	180		185	190
Glu Leu Leu Gly Cys Leu Tyr Glu Ser Gln Glu Glu Glu Leu Val Lys				
	195		200	205
Glu Val Met Ala Gln Phe Lys Glu Ile Ser Leu His Leu Asn Ala Val				
	210		215	220
Asp Val Val Pro Ser Ser Phe Cys Val Lys His Cys Arg Asn Leu Gln				
225		230		235
Lys Met Ser Leu Gln Val Ile Lys Glu Asn Leu Pro Glu Asn Val Thr				
	245		250	255
Ala Ser Glu Ser Asp Ala Glu Val Glu Arg Ser Gln Asp Asp Gln His				
	260		265	270
Met Leu Pro Phe Trp Thr Asp Leu Cys Ser Ile Phe Gly Ser Asn Lys				
	275		280	285
Asp Leu Met Gly Leu Ala Ile Asn Asp Ser Phe Leu Ser Ala Ser Leu				
290		295		300
Val Arg Ile Leu Cys Glu Gln Ile Ala Ser Asp Thr Cys His Leu Gln				
305		310		315
Arg Val Val Phe Lys Asn Ile Ser Pro Ala Asp Ala His Arg Asn Leu				
	325		330	335
Xaa Pro Xaa Ala Leu Arg Gly His Lys Thr Val Thr Tyr Leu Thr Leu				
	340		345	350
Gln Gly Asn Asp Gln Asp Asp Met Phe Pro Ala Leu Cys Glu Val Leu				
	355		360	365
Arg His Pro Glu Cys Asn Leu Arg Tyr Leu Gly Leu Val Ser Cys Ser				
	370		375	380
Ala Thr Thr Gln Gln Trp Ala Asp Leu Ser Leu Ala Leu Glu Val Asn				
385		390		395
Gln Ser Leu Thr Cys Val Asn Leu Ser Asp Asn Glu Leu Leu Asp Glu				
	405		410	415
Gly Ala Lys Leu Leu Tyr Thr Thr Leu Arg His Pro Lys Cys Phe Leu				
	420		425	430
Gln Arg Leu Ser Leu Glu Asn Cys His Leu Thr Glu Ala Asn Cys Lys				
	435		440	445
Asp Leu Ala Ala Val Leu Val Val Ser Arg Glu Leu Thr His Leu Cys				
	450		455	460
Leu Ala Lys Asn Pro Ile Gly Asn Thr Gly Val Lys Phe Leu Cys Glu				
465		470		475
Gly Leu Arg Tyr Pro Glu Cys Lys Leu Gln Thr Leu Val Leu Trp Asn				
	485		490	495
Cys Asp Ile Thr Ser Asp Gly Cys Cys Asp Leu Thr Lys Leu Leu Gln				
	500		505	510
Glu Lys Ser Ser Leu Leu Cys Leu Asp Leu Gly Leu Asn His Ile Gly				
	515		520	525
Val Lys Gly Met Lys Phe Leu Cys Glu Ala Leu Arg Lys Pro Leu Cys				
	530		535	540
Asn Leu Arg Cys Leu Trp Leu Trp Gly Cys Ser Ile Pro Pro Phe Ser				
545		550		555
Cys Glu Asp Val Cys Ser Ala Leu Ser Cys Asn Gln Ser Leu Val Thr				560

				565					570					575					
Leu	Asp	Leu	Gly	Gln	Asn	Pro	Leu	Gly	Ser	Ser	Gly	Val	Lys	Met	Leu				
			580					585					590						
Phe	Glu	Thr	Leu	Thr	Cys	Ser	Ser	Gly	Thr	Leu	Arg	Thr	Leu	Arg	Leu				
		595					600					605							
Lys	Ile	Asp	Asp	Phe	Asn	Asp	Glu	Leu	Asn	Lys	Leu	Leu	Glu	Glu	Ile				
	610					615					620								
Glu	Glu	Lys	Asn	Pro	Gln	Leu	Ile	Ile	Asp	Thr	Glu	Lys	His	His	Pro				
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<210> 4381

<211> 1638

<212> DNA

<213> Homo sapiens

<400> 4381

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120
cagtacaagg gcaccatgcg cgaggcagge cgtgccatgc acctcctcaa gaagcgcgaa
180
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240
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300
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420
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540
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720
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960
gagaaggacg agtcgcacgc gggcaagggt gtgctgcgca gctggtacga gaagaacaag
1020
cacatcttcc ccgccagccg ctgggaggcc tatgaccccg agaagaagtg ggacaagtac
1080

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 1200
 aagacagagg gttctcatga ttcacattgg ttgtgctatt gctgatgta tgctttgggt
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 1440
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 aaaaaaaaa aaaaaaaaa
 1638

<210> 4382

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4382

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Leu	Leu	Lys	Lys	Arg	Glu	Arg	Gln	Arg	Glu	Gln	Met	Glu	Val	Leu	Lys
			20					25					30		
Gln	Arg	Ile	Ala	Glu	Glu	Thr	Ile	Leu	Lys	Ser	Gln	Val	Asp	Lys	Arg
		35					40					45			
Phe	Ser	Ala	His	Tyr	Asp	Ala	Val	Glu	Ala	Glu	Leu	Lys	Ser	Ser	Ala
	50				55						60				
Val	Gly	Leu	Val	Thr	Leu	Asn	Asp	Met	Lys	Ala	Arg	Gln	Glu	Ala	Leu
65					70					75					80
Val	Arg	Glu	Arg	Glu	Arg	Gln	Leu	Ala	Lys	Arg	Gln	His	Leu	Glu	Glu
				85					90					95	
Gln	Arg	Leu	Gln	Gln	Glu	Arg	Gln	Arg	Glu	Gln	Glu	Gln	Arg	Arg	Glu
			100					105					110		
Arg	Lys	Arg	Lys	Ile	Ser	Cys	Leu	Ser	Phe	Ala	Leu	Asp	Asp	Leu	Asp
		115					120					125			
Asp	Gln	Ala	Asp	Ala	Ala	Glu	Ala	Arg	Arg	Ala	Gly	Asn	Leu	Gly	Lys
	130					135					140				
Asn	Pro	Asp	Val	Asp	Thr	Ser	Phe	Leu	Pro	Asp	Arg	Asp	Arg	Glu	Glu
145					150					155					160
Glu	Glu	Asn	Arg	Leu	Arg	Glu	Glu	Leu	Arg	Gln	Glu	Trp	Glu	Ala	Gln
			165					170					175		
Arg	Glu	Lys	Val	Lys	Asp	Glu	Glu	Met	Glu	Val	Thr	Phe	Ser	Tyr	Trp
			180					185					190		
Asp	Gly	Ser	Gly	His	Arg	Arg	Thr	Val	Arg	Val	Arg	Lys	Gly	Asn	Thr
		195					200					205			
Val	Gln	Gln	Phe	Leu	Lys	Lys	Ala	Leu	Gln	Gly	Leu	Arg	Lys	Asp	Phe

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      210              215              220
Leu Glu Leu Arg Ser Ala Gly Val Glu Gln Leu Met Phe Ile Lys Glu
225              230              235              240
Asp Leu Ile Leu Pro His Tyr His Thr Phe Tyr Asp Phe Ile Ile Ala
      245              250              255
Arg Ala Arg Gly Lys Ser Gly Pro Leu Phe Ser Phe Asp Val His Asp
      260              265              270
Asp Val Arg Leu Leu Ser Asp Ala Thr Met Glu Lys Asp Glu Ser His
      275              280              285
Ala Gly Lys Val Val Leu Arg Ser Trp Tyr Glu Lys Asn Lys His Ile
      290              295              300
Phe Pro Ala Ser Arg Trp Glu Ala Tyr Asp Pro Glu Lys Lys Trp Asp
305              310              315              320
Lys Tyr Thr Ile Arg
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<210> 4383

<211> 419

<212> DNA

<213> Homo sapiens

<400> 4383

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120
aaggagtccc agtatatcaa gtatctctgc tgtgatgaca caagaaccct taaccagtgg
180
gtcatgggaa tacggatagc caagtatggg aagactctct atgataacta ccagcgggct
240
gtggcaaagg ctggacttgc ctctcggtgg acaaacttgg ggacagtcaa tgcagctgca
300
ccagctcagc catttacagg acctaaaaca ggcaccaccc agcccaatgg acagattccc
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419

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<210> 4384

<211> 139

<212> PRT

<213> Homo sapiens

<400> 4384

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Arg Asp Leu Ala Cys Phe Ile Gln Phe Glu Asn Val Asn Ile Tyr Tyr
1      5      10      15
Gly Thr Gln His Lys Met Lys Tyr Lys Ala Pro Thr Asp Tyr Cys Phe
      20      25      30
Val Leu Lys His Pro Gln Ile Gln Lys Glu Ser Gln Tyr Ile Lys Tyr
      35      40      45
Leu Cys Cys Asp Asp Thr Arg Thr Leu Asn Gln Trp Val Met Gly Ile
      50      55      60
Arg Ile Ala Lys Tyr Gly Lys Thr Leu Tyr Asp Asn Tyr Gln Arg Ala
      65      70      75      80
Val Ala Lys Ala Gly Leu Ala Ser Arg Trp Thr Asn Leu Gly Thr Val

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	85		90		95										
Asn	Ala	Ala	Ala	Pro	Ala	Gln	Pro	Phe	Thr	Gly	Pro	Lys	Thr	Gly	Thr
		100						105						110	
Thr	Gln	Pro	Asn	Gly	Gln	Ile	Pro	Gln	Ala	Thr	His	Phe	Phe	Ser	Ala
		115						120					125		
Val	Leu	Gln	Glu	Ala	Gln	Arg	His	Ala	Glu	Asn					
	130						135								

<210> 4385
 <211> 754
 <212> DNA
 <213> Homo sapiens

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 120
 ggtcctggtc agagtcggag tcagagtccc aggaggggag tggagggctc aggcactggt
 180
 gcccttgtg gcctcttagg ctcgaggcct tgggacaggc ccccgagcac aaagtgaggc
 240
 tgtctatgga gttctgcagc acgtgcacag cagaccatat atcactcagt tccttctgga
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 ggtcctcctt ccagcagcca ctggctccct gcggtatctc ttcagtctcc ggacaggcgg
 360
 ctgtctcatg accctgctgc ttcattcttg tcaggatttt gcggcatttc acctgcgttt
 420
 tctgcatttt ctgaatgttc accaagttct ctgagatctc atcctcctgc gcttcttcaa
 480
 gctgctgaat cttgatttgc tgcaagcagc tctccttctc caacatgggt actgagtggg
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 660
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 720
 gaaagtcctc agctgtgacg ctgaagtttg atca
 754

<210> 4386
 <211> 85
 <212> PRT
 <213> Homo sapiens

Gly	Cys	Leu	Trp	Ser	Ser	Ala	Ala	Arg	Ala	Gln	Gln	Thr	Ile	Tyr	His
1				5					10					15	
Ser	Val	Pro	Ser	Gly	Gly	His	Pro	Ser	Ser	Ser	His	Trp	Leu	Pro	Ala
		20						25					30		
Val	Ser	Leu	Gln	Ser	Pro	Asp	Arg	Arg	Leu	Ser	His	Asp	Pro	Ala	Ala
		35					40					45			
Ser	Ser	Trp	Ser	Gly	Phe	Cys	Gly	Ile	Ser	Pro	Ala	Phe	Ser	Ala	Phe

50 55 60
 Ser Glu Cys Ser Pro Ser Ser Leu Arg Ser His Pro Pro Ala Leu Leu
 65 70 75 80
 Gln Ala Ala Glu Ser
 85

<210> 4387
 <211> 341
 <212> DNA
 <213> Homo sapiens

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 gggcccccccc aaaaggggggg ggggggaagg gggttttccc accccaaaaa accccccccc
 120
 ccccccggnn gggggggaag gggggggggg tttttcccc ctcccccccc ccctaaaaaa
 180
 aaaaccgga aaattttttt tcccccccc ccaaaaaaa aaaaaaaacc ggggggcccc
 240
 cctttttttt gggggggggg tttttttttt tttttttttt tttttttttt ttttttttac
 300
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 341

<210> 4388
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 4388
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 Lys Lys Lys Gly Gly Pro Pro Gln Lys Gly Gly Gly Gly Arg Gly Phe
 20 25 30
 Ser His Pro Lys Lys Pro Pro Pro Pro Pro Gly Xaa Gly Gly Arg Gly
 35 40 45
 Gly Gly Phe Phe Pro Pro Pro Pro Pro Pro Lys Lys Lys Thr Arg Lys
 50 55 60
 Ile Phe Phe Pro Pro Pro Pro Lys Lys Lys Lys Lys Pro Gly Gly Pro
 65 70 75 80
 Pro Phe Phe Gly Gly Gly Phe Phe Phe Phe Phe Phe Phe Phe
 85 90 95
 Phe Phe Phe Tyr Lys Thr Glu Asn Val Tyr Cys Ala Arg Gly Trp Ser
 100 105 110
 Val

<210> 4389
 <211> 1895
 <212> DNA
 <213> Homo sapiens

<400> 4389

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120
ccagcgggtgt acggcgattc tgcccgtgag aaggcattgc gtggagctct gcgagcctcc
180
gtggaacgac gcctgagtcg ccacgacgtc gtcacacctg actcgcttaa ctacatcaaa
240
ggtttccgtt acgagctcta ctgcctggca cgggcggcgc gcaccccgtc ctgcctggtc
300
tactgcgtac ggccccggcg cccgatcgcg ggacctcagg tggcggggcg gaacgagaac
360
cctggccgga acgtcagtgt gagttggcgg ccacgcgctg aggaggacgg gagagcccag
420
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480
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540
gctcttgtga ctccggattc agagaaatct gcaaagcatg ggtccggtgc cttttactct
600
cccgaactcc tggaggccct aacgctgcgc tttgaggctc ccgattctcg gaatcgctgg
660
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720
tctgccctgt ttgagaaccg ggccccacca ccccatcagt ctacgcagtc ccagcccctc
780
gcctccggca gctttctgca ccagttggac caggtcacga gtcaagtact ggccggattg
840
atggaagcgc agaagagcgc tgtccccggg gacttgetca cgcttcctgg taccacagag
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1080
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1440
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1620

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1680
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<210> 4390

<211> 335

<212> PRT

<213> Homo sapiens

<400> 4390

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Asp	Asp	Ala	Ala	Val	Leu	Gly	Ala	Glu	Asp	Pro	Ala	Val	Tyr	Gly	Asp
		20						25					30		
Ser	Ala	Arg	Glu	Lys	Ala	Leu	Arg	Gly	Ala	Leu	Arg	Ala	Ser	Val	Glu
		35					40					45			
Arg	Arg	Leu	Ser	Arg	His	Asp	Val	Val	Ile	Leu	Asp	Ser	Leu	Asn	Tyr
		50				55					60				
Ile	Lys	Gly	Phe	Arg	Tyr	Glu	Leu	Tyr	Cys	Leu	Ala	Arg	Ala	Ala	Arg
65					70					75					80
Thr	Pro	Leu	Cys	Leu	Val	Tyr	Cys	Val	Arg	Pro	Gly	Gly	Pro	Ile	Ala
			85						90					95	
Gly	Pro	Gln	Val	Ala	Gly	Ala	Asn	Glu	Asn	Pro	Gly	Arg	Asn	Val	Ser
			100					105					110		
Val	Ser	Trp	Arg	Pro	Arg	Ala	Glu	Glu	Asp	Gly	Arg	Ala	Gln	Ala	Ala
		115					120					125			
Gly	Ser	Ser	Val	Leu	Arg	Glu	Leu	His	Thr	Ala	Asp	Ser	Val	Val	Asn
		130				135					140				
Gly	Ser	Ala	Gln	Ala	Asp	Val	Pro	Lys	Glu	Leu	Glu	Arg	Glu	Glu	Ser
145					150					155					160
Gly	Ala	Ala	Glu	Ser	Pro	Ala	Leu	Val	Thr	Pro	Asp	Ser	Glu	Lys	Ser
			165						170					175	
Ala	Lys	His	Gly	Ser	Gly	Ala	Phe	Tyr	Ser	Pro	Glu	Leu	Leu	Glu	Ala
		180						185					190		
Leu	Thr	Leu	Arg	Phe	Glu	Ala	Pro	Asp	Ser	Arg	Asn	Arg	Trp	Asp	Arg
		195					200					205			
Pro	Leu	Phe	Thr	Leu	Val	Gly	Ile	Glu	Glu	Pro	Leu	Pro	Pro	Ala	Gly
		210				215					220				
Ile	Arg	Ser	Ala	Leu	Phe	Glu	Asn	Arg	Ala	Pro	Pro	Pro	His	Gln	Ser
225					230					235					240
Thr	Gln	Ser	Gln	Pro	Leu	Ala	Ser	Gly	Ser	Phe	Leu	His	Gln	Leu	Asp
			245						250					255	
Gln	Val	Thr	Ser	Gln	Val	Leu	Ala	Gly	Leu	Met	Glu	Ala	Gln	Lys	Ser
			260					265					270		
Ala	Val	Pro	Gly	Asp	Leu	Leu	Thr	Leu	Pro	Gly	Thr	Thr	Glu	His	Leu
		275					280					285			
Arg	Phe	Thr	Arg	Pro	Leu	Thr	Met	Ala	Glu	Leu	Ser	Arg	Leu	Arg	Arg

290		295		300
Gln Phe Ile Ser Tyr Thr Lys Met His Pro Asn Asn Glu Asn Leu Pro				
305		310		315
Gln Leu Ala Asn Met Phe Leu Gln Tyr Leu Ser Gln Ser Leu His				320
	325		330	335

<210> 4391
 <211> 988
 <212> DNA
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<400> 4391
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 120
 ggaggtggca tgcgaccccc acccaactcc ctgcgcggcc caggcctgcc tgccatgaac
 180
 atggggccag gagttcgtgg cccgtggggc agccccagtg gaaactcgat cccctactcc
 240
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 300
 atcatgccta gccctggaga ttccaccaac tccagcgaaa acatgtacac tatcatgaac
 360
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 780
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 840
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 960
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 988

<210> 4392
 <211> 211
 <212> PRT
 <213> Homo sapiens

<400> 4392
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20	25	30	
Ala Ser Val Gly Pro Gln Ser Tyr Gly Gly Gly Met Arg Pro Pro Pro			
35	40	45	
Asn Ser Leu Ala Gly Pro Gly Leu Pro Ala Met Asn Met Gly Pro Gly			
50	55	60	
Val Arg Gly Pro Trp Ala Ser Pro Ser Gly Asn Ser Ile Pro Tyr Ser			
65	70	75	80
Ser Ser Ser Pro Gly Ser Tyr Thr Gly Pro Pro Gly Gly Gly Gly Pro			
85	90	95	
Pro Gly Thr Pro Ile Met Pro Ser Pro Gly Asp Ser Thr Asn Ser Ser			
100	105	110	
Glu Asn Met Tyr Thr Ile Met Asn Pro Ile Gly Gln Gly Ala Gly Arg			
115	120	125	
Ala Asn Phe Pro Leu Gly Pro Gly Pro Glu Gly Pro Met Ala Ala Met			
130	135	140	
Ser Ala Met Glu Pro His His Val Asn Gly Ser Leu Gly Ser Gly Asp			
145	150	155	160
Met Asp Gly Leu Pro Lys Ser Ser Pro Gly Ala Val Ala Gly Leu Ser			
165	170	175	
Asn Ala Pro Gly Thr Pro Arg Asp Asp Gly Glu Met Ala Ala Ala Gly			
180	185	190	
Thr Phe Leu His Pro Phe Pro Ser Glu Ser Tyr Ser Pro Gly Met Thr			
195	200	205	
Met Ser Val			
210			

<210> 4393

<211> 2171

<212> DNA

<213> Homo sapiens

<400> 4393

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 120
 gtggccccggg agcaggtgga cccggagcgg agctcccctg ccctgggctt ggcgggccgc
 180
 tcccgggaga agctgcagcg ggtgctggag aaggcggccc tgaagctggg aagaccaaca
 240
 ctgtcatctg aagttggaat catcatctgt gatattgcta atccagcctc gcttgatgaa
 300
 atggctaaac aggcaacagt tgcctcaat tgcgtaggac catatcggtt ttatggagaa
 360
 cctgtaataa aagcatgtat tgaaaatgga gccagttgta tcgacatcag tggagaacct
 420
 cagtttctgg aactaatgca actgaagtat catgagaaag ctgcagacaa aggggtttat
 480
 atcattggaa gcagcggctt tgactccatt ccagcagatc tgggagtaat atataccaga
 540
 aataaaaatga atggtacttt gactgctgtg gaaagtctcc tgactataca ttcaggacct
 600

gaggggttga gcattcatga tggtagctgg aagtcagcaa tttatgggtt tggagatcag
660
agtaatttga gaaaactaag aaatgtatca aatctgaaac ctgtcccgt cattgggtcca
720
aaattgaaga gaaggtggcc aattttcttat tgtcgggaac tcaaagggtta ttccatttct
780
tttatgggat ctgatgtgtc tgttgtaagg aggactcaac gttacttgta tgaaaattta
840
gaggaatcac cagttcagta tgctgcgtat gtaactgtgg gaggcacac ctctgttatt
900
aagctgatgt ttgcaggact tttctttttg ttcttttgta ggtttggaat tggaaggcaa
960
ctttcataa aattcccatg gttcttctcc tttggctatt tttcaaaaca aggcccaaca
1020
caaaaacaga ttgatgtgtc ctcatcacg ctgacattct ttggtcaagg atacagccaa
1080
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<210> 4394
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<400> 4394

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<213> Homo sapiens

<400> 4396

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<212> DNA

<213> Homo sapiens

<400> 4397

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<213> Homo sapiens

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Tyr	Ser	Tyr	Thr	Ile	Ile	Thr	Val	Asp	Ser	Cys	Lys	Gly	Leu	Ser	Asp
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	245	250
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Val Val Lys Lys Glu Leu Arg Ala Ser Gly Ser Ser Gln Arg Met Leu		270
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	290	295
Gln Lys Glu Glu Ser Asp Val Pro Gln Trp Ser Ser Gln Phe Leu Gln		300
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Lys Ser Pro Leu Pro Thr Lys Arg Gly Thr Ala Gly Leu Leu Glu Gln		320
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<213> Homo sapiens

<400> 4399

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<210> 4400

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 <213> Homo sapiens

<400> 4400

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Leu	Gly	Val	Gln	Ala	Gly	Gln	Thr	Gln	Lys	Leu	Leu	Leu	Gln	Lys	Glu
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Ser	Ser	Pro	Lys	Arg	Glu	Leu	Pro	Pro	Gly	Ile	Gly	Asp	Met	Val	Glu
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Leu	Met	Gly	Val	Gln	Asp	Gln	His	Met	Asp	Glu	Arg	Asp	Val	Arg	Arg
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Phe	Gln	Leu	Lys	Ile	Ala	Glu	Leu	Asn	Ser	Val	Ile	Arg	Lys	Leu	Glu
			100					105					110		
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Glu	Glu	Lys	Ile	Lys	Asn	Leu	Thr	Arg	Glu	Asn	Val	Glu	Met	Lys	Glu
				165					170					175	
Lys	Leu	Ser	Ala	Gln	Ala	Ser	Leu	Lys	Arg	His	Thr	Ser	Leu	Asn	Asp
		180						185					190		
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<400> 4401

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<210> 4402

<211> 252

<212> PRT

<213> Homo sapiens

<400> 4402

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Asn	Ile	Ala	Ala	Ser	Leu	Met
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Val	Glu	Arg	Lys	Lys	Gly	Ala
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Leu	Gln	Pro	Thr	Pro	Gln	Leu
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Gln Pro Trp Met Pro Pro Thr Pro Gly Pro Met Asp Ile Val Pro Pro
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Ser Ser Phe Arg Asp Arg Gln Arg Ser Pro Ile Ala Leu Pro Val Lys
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Gln Glu Pro Pro Gln Ile Asp Ala Val Lys Arg Arg Thr Leu Pro Ala
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Trp Ile Arg Glu Gly Leu Glu Lys Met Glu Arg Glu Lys Gln Lys Lys
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Asn Val Glu Ala Ala Ser Ser Gly Lys Val Thr Arg Ser Pro Ser Pro
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Val Pro Gln Glu Glu His Ser Asp Pro Glu Met Thr Glu Glu Glu Lys
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Glu Tyr Gln Met Met Leu Leu Thr Lys Met Leu Leu Thr Glu Ile Leu
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Arg Lys Ala Thr Lys Ala Pro Ala Lys Gln Leu Ala Gln Ser Ser Ala
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Leu Ala Ser Leu Thr Gly Leu Gly Gly Leu Gly Gly Tyr Gly Ser Gly
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Asp Ser Glu Asp Glu Arg Ser Asp Arg Gly Ser Glu Ser Ser Asp Thr

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 Ile His Lys Glu Gln Asn Ser Leu Ser Leu Leu Glu Ala Arg Glu Ala
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 Asp Gly Asp Val Val Asn Glu Lys Lys Arg Thr Pro Asn Glu Thr Thr
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 Ser Val Leu Glu Pro Lys Lys Glu His Lys Glu Lys Glu Lys Gln Gly
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 485 490 495
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<212> DNA

<213> Homo sapiens

<400> 4405

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Lys Glu Leu Tyr Asp His Ala Glu Ala Thr Ile Val Val Met Leu Val
35           40           45
Gly Asn Lys Ser Asp Leu Ser Gln Ala Arg Glu Val Pro Thr Glu Glu
50           55           60
Ala Arg Met Phe Ala Glu Asn Asn Gly Leu Leu Phe Leu Glu Thr Ser
65           70           75           80
Ala Leu Asp Ser Thr Asn Val Glu Leu Ala Phe Glu Thr Val Leu Lys

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Asn	Ala	Ile	Thr	Leu	Gly	Ser	Ala	Gln	Ala	Gly	Gln	Glu	Pro	Gly	Pro
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Glu Ser Leu His Leu Phe Asn Ser Ile Cys Asn His Lys Tyr Phe Ser
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Thr Thr Ser Ile Val Leu Phe Leu Asn Lys Lys Asp Ile Phe Gln Glu
      65           70           75           80
Lys Val Thr Lys Val His Leu Ser Ile Cys Phe Pro Glu Tyr Thr Gly
      85           90           95
Pro Asn Thr Phe Glu Asp Ala Gly Asn Tyr Ile Lys Asn Gln Phe Leu
      100          105          110
Asp Leu Asn Leu Lys Lys Glu Asp Lys Glu Ile Tyr Ser His Met Thr
      115          120          125
Cys Ala Thr Asp Thr Gln Asn Val Lys Phe Val Phe Asp Ala Val Thr
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<212> DNA

<213> Homo sapiens

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4080
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<210> 4410

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4410

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Gln	Gly	Pro	Arg	Gly	Ser	Arg	Ser	Ser	Arg	Ala	Asp	Pro	Pro	Pro	His
			20				25					30			
Ser	His	Met	Ala	Thr	Arg	Ser	Arg	Glu	Asn	Ala	Arg	Arg	Arg	Gly	Thr
		35				40					45				
Pro	Glu	Pro	Glu	Glu	Ala	Gly	Arg	Arg	Gly	Gly	Lys	Arg	Pro	Lys	Pro
	50					55					60				
Pro	Pro	Gly	Val	Ala	Ser	Ala	Ser	Ala	Arg	Gly	Pro	Pro	Ala	Thr	Asp
65					70				75						80
Gly	Leu	Gly	Ala	Lys	Val	Lys	Leu	Glu	Glu	Lys	Gln	His	His	Pro	Cys
				85				90						95	
Gln	Lys	Cys	Pro	Arg	Val	Phe	Asn	Asn	Arg	Trp	Tyr	Leu	Glu	Lys	His
			100				105					110			
Met	Asn	Val	Thr	His	Ser	Arg	Met	Gln	Ile	Cys	Asp	Gln	Cys	Gly	Lys
		115				120					125				
Arg	Phe	Leu	Leu	Glu	Ser	Glu	Leu	Leu	Leu	His	Arg	Gln	Thr	Asp	Cys
	130					135					140				
Glu	Arg	Asn	Ile	Gln	Cys	Val	Thr	Cys	Gly	Lys	Ala	Phe	Lys	Lys	Leu
145				150					155					160	
Trp	Ser	Leu	His	Glu	His	Asn	Lys	Ile	Val	His	Gly	Tyr	Ala	Glu	Lys
			165				170							175	
Lys	Phe	Ser	Cys	Glu	Ile	Cys	Glu	Lys	Lys	Phe	Tyr	Thr	Met	Ala	His
		180					185						190		
Val	Arg	Lys	His	Met	Val	Ala	His	Thr	Lys	Asp	Met	Pro	Phe	Thr	Cys
	195						200					205			
Glu	Thr	Cys	Gly	Lys	Ser	Phe	Lys	Arg	Ser	Met	Ser	Leu	Lys	Val	His
	210					215				220					
Ser	Leu	Gln	His	Ser	Gly	Glu	Lys	Pro	Phe	Arg	Cys	Glu	Asn	Cys	Asp
225				230					235					240	
Glu	Arg	Phe	Gln	Tyr	Lys	Tyr	Gln	Leu	Arg	Ser	His	Met	Ser	Ile	His
			245				250							255	
Ile	Gly	His	Lys	Gln	Phe	Met	Cys	Gln	Trp	Cys	Gly	Lys	Asp	Phe	Asn
		260					265						270		
Met	Lys	Gln	Tyr	Phe	Asp	Glu	His	Met	Lys	Thr	His	Thr	Gly	Glu	Lys
	275					280						285			
Pro	Phe	Ile	Cys	Glu	Ile	Cys	Gly	Lys	Ser	Phe	Thr	Ser	Arg	Pro	Asn
	290					295					300				
Met	Lys	Arg	His	Arg	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Pro	Cys

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305          310          315          320
Asp Val Cys Gly Gln Arg Phe Arg Phe Ser Asn Met Leu Lys Ala His
          325          330          335
Lys Glu Lys Cys Phe Arg Val Ser His Thr Leu Ala Gly Asp Gly Val
          340          345          350
Pro Ala Ala Pro Gly Leu Pro Pro Thr Gln Pro Gln Ala His Ala Leu
          355          360          365
Pro Leu Leu Pro Gly Leu Pro Gln Thr Leu Pro Pro Pro Pro His Leu
          370          375          380
Pro Pro Pro Pro Pro Leu Phe Pro Thr Thr Ala Ser Pro Gly Gly Arg
385          390          395          400
Met Asn Ala Asn Asn
          405

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<210> 4411
 <211> 484
 <212> DNA
 <213> Homo sapiens

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<400> 4411
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120
caaaagagga gtttagggtg gctatggtgc aggggcagct gtatgcttca cctcaaagt
180
tactgtcttc tctctccatc aaggaggaag ggcccaggct ggggttagga gggctagggg
240
cccaggctgt gtgtcccctt tttctctcct ggtgcctgc ccccccacgc tgtcatctcc
300
ctcagtggca gtgggggttc atcactgggt cttcagggtcc cttgcccattg gctgggtggtg
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ttccagggtg gcccaaccag gcggccctg cctctaggca gcgcgtagggt ttccttgggc
420
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480
atcc
484

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<210> 4412
 <211> 113
 <212> PRT
 <213> Homo sapiens

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<400> 4412
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Leu Ser Ile Lys Glu Glu Gly Pro Arg Leu Gly Leu Gly Gly Leu Gly
20          25          30
Ala Gln Ala Val Cys Pro Leu Phe Ser Ser Trp Cys Pro Ala Pro Pro
35          40          45
Arg Cys His Leu Pro Gln Trp Gln Trp Gly Phe Ile Thr Gly Ser Ser
50          55          60
Gly Pro Leu Pro Met Ala Gly Gly Val Pro Gly Gly Pro Asn Gln Ala

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65		70		75		80									
Ala	Pro	Ala	Ser	Arg	Gln	Arg	Val	Gly	Phe	Leu	Gly	Gln	Pro	Gln	Ser
		85				90							95		
Cys	Gln	Arg	Gln	His	Val	Ser	Leu	His	Arg	Ser	His	Gln	Ala	Pro	Leu
		100					105						110		

Asp

<210> 4413

<211> 1097

<212> DNA

<213> Homo sapiens

<400> 4413

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120
agcagcctgg cactcttcag agatgatacg ggtgtcaaat atggcttggg gggattggag
180
cccaccaagg tgccctgaat gtggagcgct tccgggagtt ggcaggtgct ggcagacaca
240
gcggtcacca gtggcagaca ctactgggaa gtgacagtga agcgctccca gcagttccgg
300
ataggagtgg cagatgtgga catgtcccgg gatagctgca ttggtgttga tgatcgttcc
360
tggtgttca cctatgccca gcgcaagtgg tacaccatgt tggccaacga gaaagcccca
420
gttgagggtta ttgggcagcc agagaagggtg gggctgttgc tggagtatga ggcccagaag
480
ctgagcctgg tggatgtgag ccagggtctct gtggttcaca cgctacagac agatttccgg
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600
gaggtgcccg agggcctcta gtatgtccat tactggagtc cctaatacag cctttggcca
660
gcctcctttt gaaagtgtcc gaagcctttt tactttgcct caagcaacct ctagctccca
720
caattcagtg ttgggtcctc tgtgcaatat catgatcatc ttcctcatcc cctaccttgt
780
gaaagctagg catacagcca aaccctcctt tccccaccc accaactact gccaatattc
840
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960
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1080
aaaaaaaaaa aaaaaaa
1097

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<210> 4414

<211> 65
<212> PRT
<213> Homo sapiens

<400> 4414

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Lys	Arg	Leu	Gly	Val	Ala	Ser	Thr	Glu	Arg	Gln	Arg	Gly	Val	Ser	Phe
		20						25					30		
Lys	Leu	Glu	Glu	Lys	Thr	Ala	His	Ser	Ser	Leu	Ala	Leu	Phe	Arg	Asp
		35					40					45			
Asp	Thr	Gly	Val	Lys	Tyr	Gly	Leu	Val	Gly	Leu	Glu	Pro	Thr	Lys	Val
	50					55						60			
Pro															
65															

<210> 4415
<211> 775
<212> DNA
<213> Homo sapiens

<400> 4415

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attattgaat acacaaaagg aatgttaccg ttacttggtc atagtcaaag gtgaagttaa
180
aaaaaaaggg aagttaaata actgaagtaa tggtttgccc aaatagcaaa cgtaggatac
240
aggcgtgggc aaagagcagc tactgaagct catgaggagg atgctggata tagggtaggt
300
aacttgacaa atgcctctgc ttctttggaa cttcttcct agatcacccc cacaaattcc
360
aaacctggct ctttcagagc acaacagcca aatgtaacta aactcctcat tacttctgtg
420
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480
tgtctgaatc catttctctt ggggtaggag gaggtaatga acattaacgt tctgcatctc
540
aatctcctaa aatggaattt aaccagatag atatcgcttg agattttaa gcaggagata
600
ccataagtaa tgatactcca ggctgtaaa gcatttttca ttgtcccaca ttgcagctaa
660
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775

<210> 4416
<211> 100
<212> PRT
<213> Homo sapiens

<400> 4416

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Cys Phe Lys Ile Ser Ser Asp Ile Tyr Leu Val Lys Phe His Phe Arg
 20           25           30
Arg Leu Arg Cys Arg Thr Leu Met Phe Ile Thr Ser Ser Tyr Pro Lys
 35           40           45
Arg Asn Gly Phe Arg His Val Leu Ser Gln Gln Glu Ile Asp Phe Phe
 50           55           60
Leu Asn Tyr Leu Ile Leu Leu Pro Asn Ile Thr Glu Val Met Arg Ser
 65           70           75           80
Leu Val Thr Phe Gly Cys Cys Ala Leu Lys Glu Pro Gly Leu Glu Phe
 85           90           95
Val Gly Val Ile
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<210> 4417

<211> 980

<212> DNA

<213> Homo sapiens

<400> 4417

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840
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960

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gtgagcaggt aagagaggga
980

<210> 4418
<211> 263
<212> PRT
<213> Homo sapiens

<400> 4418
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Asn Gln Leu Leu Lys Met Lys Val Glu Ser Ser Gln Glu Ala Asn Ala
20 25 30
Glu Val Met Arg Glu Met Thr Lys Lys Leu Tyr Ser Gln Tyr Glu Glu
35 40 45
Lys Leu Gln Glu Glu Gln Arg Lys His Ser Ala Glu Lys Glu Ala Leu
50 55 60
Leu Glu Glu Thr Asn Ser Phe Leu Lys Ala Ile Glu Glu Ala Asn Lys
65 70 75 80
Lys Met Gln Ala Ala Glu Ile Ser Leu Glu Glu Lys Asp Gln Arg Ile
85 90 95
Gly Glu Leu Asp Arg Leu Ile Glu Arg Met Glu Lys Glu Arg His Gln
100 105 110
Leu Gln Leu Gln Leu Leu Glu His Glu Thr Glu Met Ser Gly Glu Leu
115 120 125
Thr Asp Ser Asp Lys Glu Arg Tyr Gln Gln Leu Glu Glu Ala Ser Ala
130 135 140
Ser Leu Arg Glu Arg Ile Arg His Leu Asp Asp Met Val His Cys Gln
145 150 155 160
Gln Lys Lys Val Lys Gln Met Val Glu Glu Ile Glu Ser Leu Lys Lys
165 170 175
Lys Val Gln Gln Lys Gln Leu Leu Ile Leu Gln Leu Leu Glu Lys Ile
180 185 190
Ser Phe Leu Glu Gly Glu Asn Asn Glu Leu Gln Ser Arg Leu Asp Tyr
195 200 205
Leu Thr Glu Thr Gln Ala Lys Thr Glu Val Glu Thr Arg Glu Ile Gly
210 215 220
Val Gly Cys Asp Leu Leu Pro Ser Pro Thr Gly Arg Thr Arg Glu Ile
225 230 235 240
Val Met Pro Ser Arg Asn Tyr Thr Pro Tyr Thr Arg Val Leu Glu Leu
245 250 255
Ser Ser Lys Lys Thr Leu Thr
260

<210> 4419
<211> 369
<212> DNA
<213> Homo sapiens

<400> 4419
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120

cctccgcctc cccagctcaa gcaactctcc tgccccagcc acccaagtnn aaattacagg
 180
 cccgtgccac cacacccggc caatttctgt attttttagta gagacggggg ttcaccatat
 240
 tggccaggac ggtctcaaac tcctggcccc atgtgatcct cccaccttgg cctcccaagg
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 369

<210> 4420
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 4420
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 Trp Cys Asp Leu Gly Ser Leu Gln Pro Pro Pro Pro Gln Leu Lys Gln
 35 40 45
 Leu Ser Cys Pro Ser His Pro Ser Xaa Asn Tyr Arg Pro Val Pro Pro
 50 55 60
 His Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Gly Val Ser Pro Tyr
 65 70 75 80
 Trp Pro Gly Arg Ser Gln Thr Pro Gly Pro Met
 85 90

<210> 4421
 <211> 1356
 <212> DNA
 <213> Homo sapiens

<400> 4421
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 ctggggtgtg ctagagagag gaaagctgga ggaggagagc tgagctgggtg gttaccccat
 180
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 240
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 360
 aagcaaccac cagaggctga tacaaatggc cgctgtatgt ttgctaaagt gacagtgaca
 420
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 1200
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 1260
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 1320
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 1356

<210> 4422
 <211> 58
 <212> PRT
 <213> Homo sapiens

<400> 4422
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 Glu Ala Gly Glu Ser Pro Glu Ile Arg Ser Ser Arg Pro Ala Trp Pro
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 Thr Trp Gln Asn Pro Val Ser Thr Lys Asn Thr Lys Ile Cys Arg Ala
 35 40 45
 Trp Trp Gln Met Pro Val Ile Pro Ala Thr
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<210> 4423
 <211> 2673
 <212> DNA
 <213> Homo sapiens

<400> 4423
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cccatgtgac tgggcagacg acaaaaagct ttggggaaga accgcagtgc tgatttcaac
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240
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360
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420
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480
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<212> PRT

<213> Homo sapiens

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<213> Homo sapiens

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Xaa Pro Gly Asp Arg Gly Ser Ala His Leu Ala Ser His Cys Pro Pro						
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Gln Glu Ser Ala Ser Gly Gly Ser Ser His Ser Ser Ala Pro Asp Ser						
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<210> 4427

<211> 4474

<212> DNA

<213> Homo sapiens

<400> 4427

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<210> 4428

<211> 763

<212> PRT

<213> Homo sapiens

<400> 4428

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Cys	Leu	Gly	Gly	Gly	Leu	Glu	Val	Ala	Ile	Ser	Cys	Gln	Tyr	Arg	Ile
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3622

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<212> DNA
<213> Homo sapiens
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780

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<210> 4430
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 <212> PRT
 <213> Homo sapiens

<400> 4430
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 35 40 45
 Ala Pro Gln Pro Arg Arg Lys Pro Ser Phe Gln Thr Val Gly Ile Pro
 50 55 60
 Phe Ile Pro Trp His Arg Glu Pro Lys Gly Met Gln Thr Asp Pro Gly
 65 70 75 80
 Arg Ala Leu His Ser Gln Thr Leu Ala Arg Thr Arg Arg Leu Gly Ala
 85 90 95
 Pro Arg Arg Ala Leu Pro Pro Arg Pro Pro Pro Pro Ala Asp Ser Pro
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 Leu Cys Glu Leu Asn His Leu Gly Ala Met Cys Arg Gly Arg Ala Ser
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<210> 4431
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 <212> DNA
 <213> Homo sapiens

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<210> 4432
 <211> 57
 <212> PRT
 <213> Homo sapiens

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<210> 4433
 <211> 447
 <212> DNA
 <213> Homo sapiens

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<210> 4434
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<210> 4435
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<212> DNA
<213> Homo sapiens
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<211> 261
 <212> PRT
 <213> Homo sapiens

<400> 4436
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 Asp Glu Glu Asp Met Phe Met Val Val Asp Leu Leu Leu Gly Gly Asp
 35 40 45
 Leu Arg Tyr His Leu Gln Gln Asn Val His Phe Thr Glu Gly Thr Val
 50 55 60
 Lys Leu Tyr Ile Cys Glu Leu Ala Leu Ala Leu Glu Tyr Leu Gln Arg
 65 70 75 80
 Tyr His Ile Ile His Arg Asp Ile Lys Pro Asp Asn Ile Leu Leu Asp
 85 90 95
 Glu His Gly His Val His Ile Thr Asp Phe Asn Ile Ala Thr Val Val
 100 105 110
 Lys Gly Ala Glu Arg Ala Ser Ser Met Ala Gly Thr Lys Pro Tyr Met
 115 120 125
 Ala Pro Glu Val Phe Gln Val Tyr Met Asp Arg Gly Pro Gly Tyr Ser
 130 135 140
 Tyr Pro Val Asp Trp Trp Ser Leu Gly Ile Thr Ala Tyr Glu Leu Leu
 145 150 155 160
 Arg Gly Trp Arg Pro Tyr Glu Ile His Ser Val Thr Pro Ile Asp Glu
 165 170 175
 Ile Leu Asn Met Phe Lys Val Glu Arg Val His Tyr Ser Ser Thr Trp
 180 185 190
 Cys Lys Gly Met Val Ala Leu Leu Arg Lys Leu Leu Thr Lys Asp Pro
 195 200 205
 Glu Ser Arg Val Ser Ser Leu His Asp Ile Gln Ser Val Pro Tyr Leu
 210 215 220
 Ala Asp Met Asn Trp Asp Ala Val Phe Lys Lys Ala Leu Met Pro Gly
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 <211> 620
 <212> DNA
 <213> Homo sapiens

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<210> 4438
 <211> 206
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ser Thr Leu Leu Arg Glu Ala Gln Glu Leu Ser Leu Glu Lys Leu Gln
 50 55 60
 Gln Ala Val Arg Gln Asn Gly Leu Met Ser Gly Leu Met Gln Met Leu
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 Leu Leu Lys Val Ser Ala His Ile Thr Glu Gln Leu Gly Met Ala Pro
 85 90 95
 Gly Gly Glu Phe Arg Glu Ala Phe Lys Glu Ala Ser Lys Val Pro Phe
 100 105 110
 Cys Lys Phe His Leu Gly Asp Arg Pro Ile Pro Val Thr Phe Lys Arg
 115 120 125
 Ala Ile Ala Ala Leu Ser Phe Trp Gln Lys Val Arg Leu Ala Trp Gly
 130 135 140
 Leu Cys Phe Leu Ser Asp Pro Ile Ser Lys Asp Asp Val Glu Arg Cys
 145 150 155 160
 Lys Gln Lys Asp Leu Leu Glu Gln Met Met Ala Glu Met Ile Gly Glu
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<210> 4439
 <211> 2121
 <212> DNA
 <213> Homo sapiens

<400> 4439

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 <211> 82
 <212> PRT
 <213> Homo sapiens

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 35 40 45
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 <212> DNA
 <213> Homo sapiens

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<210> 4442
 <211> 517
 <212> PRT
 <213> Homo sapiens

<400> 4442
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 35 40 45
 Trp Arg Leu Trp Ala Ile Lys Asp Phe Gln Glu Cys Thr Trp Gln Val
 50 55 60
 Val Leu Asn Glu Phe Lys Arg Val Gly Glu Ser Gly Val Ser Asp Ser
 65 70 75 80
 Phe Phe Glu Gln Glu Pro Val Asp Thr Val Ser Ser Leu Phe His Met
 85 90 95
 Leu Val Asp Ser Pro Ile Asp Pro Ser Glu Lys Tyr Leu Gly Phe Pro
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 Tyr Tyr Leu Lys Ile Asn Tyr Ser Cys Glu Glu Lys Pro Ser Glu Asp
 115 120 125
 Leu Val Arg Met Gly His Leu Thr Gly Leu Lys Pro Leu Val Leu Val
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 Thr Phe Gln Ser Pro Val Asn Phe Tyr Arg Trp Lys Ile Glu Gln Leu
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 Gln Ile Gln Met Glu Ala Ala Pro Phe Arg Ser Lys Gly Gly Pro Gly
 165 170 175
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 180 185 190
 Leu Lys Arg Asp Arg Asp Asn Asn Ile Gln Phe Thr Val Gly Glu Glu
 195 200 205
 Leu Phe Asn Leu Met Pro Gln Tyr Phe Val Gly Val Ser Ser Arg Pro
 210 215 220
 Leu Trp His Thr Val Asp Gln Ser Pro Val Leu Ile Leu Gly Gly Ile
 225 230 235 240
 Pro Asn Glu Lys Tyr Val Leu Met Thr Asp Thr Ser Phe Lys Asp Phe
 245 250 255
 Ser Leu Val Glu Val Asn Gly Val Gly Gln Met Leu Ser Ile Asp Ser
 260 265 270
 Cys Trp Val Gly Ser Phe Tyr Cys Pro His Ser Gly Phe Thr Ala Thr
 275 280 285
 Ile Tyr Asp Thr Ile Ala Thr Glu Ser Thr Leu Phe Ile Arg Gln Asn
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Tyr	Gly	Asn	Ala	Ser	Lys	Arg	Phe	Gln	Val	Val	Ser	Tyr	Asn	Thr	Ala				
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Ser	Asp	Asp	Leu	Glu	Leu	Leu	Tyr	His	Ile	Pro	Glu	Phe	Ile	Pro	Glu				
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Trp	Arg	Ala	Ala	Thr	Gly	Ser	Thr	Ser	Cys	Ser	Leu	Pro	Arg	Ala	Gly				
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<210> 4443

<211> 692

<212> DNA

<213> Homo sapiens

<400> 4443

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<210> 4444
<211> 108
<212> PRT
<213> Homo sapiens

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Cys Glu Ala Ser Cys Lys Leu Asp Ser Leu Pro Ser Ala Pro Ser Pro
35 40 45
Lys Ala Gly Leu Gln Glu Val Arg Pro Ala Leu Gln Ala Thr Pro Val
50 55 60
Leu Gly Leu Leu Leu Ser Ser Ser Phe Leu Arg Val Thr Glu Pro Gly
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Arg Glu Val Gly Cys Gly Leu Pro Cys Pro Tyr Ser His Leu Leu Gln
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Leu Pro Pro Cys Trp Thr His Gln Gln Ser Lys
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<211> 901
<212> DNA
<213> Homo sapiens

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<210> 4446
 <211> 140
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Thr Pro Gly Leu Pro Ser Ser Ala Val Asn Asp Asp Leu Leu Leu Leu
 50 55 60
 Pro Ser Ser Leu Pro Ser Val Thr Lys Gly Leu Pro Arg Cys Gln Leu
 65 70 75 80
 Trp Asn Glu Gly Cys Pro Trp Glu Val Met Ile Leu Arg Tyr Thr Gly
 85 90 95
 Ala Gln Gln Ile Ala Ser Ser Tyr Pro Gln Thr Val Phe Ala Cys Met
 100 105 110
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<210> 4447
 <211> 951
 <212> DNA
 <213> Homo sapiens

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<210> 4448

<211> 263

<212> PRT

<213> Homo sapiens

<400> 4448

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Val	Pro	Pro	Ala	Leu	Gln	Leu	Glu	Asp	Leu	Thr	Thr	Leu	Glu	Glu
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His	Pro	Asp	Leu	Val	Val	Glu	Val	Ala	His	Pro	Lys	Ile	Ile	His
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Ser	Gly	Val	Gln	Ile	Leu	Arg	His	Ala	Asn	Leu	Leu	Ser	Leu	Arg
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Thr	Met	Ala	Thr	His	Pro	Asp	Gly	Phe	Arg	Leu	Glu	Gly	Pro	Leu
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<210> 4449

<211> 1365

<212> DNA

<213> Homo sapiens

<400> 4449

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1260

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<210> 4450
 <211> 194
 <212> PRT
 <213> Homo sapiens

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 Asn Gly Met Ala Leu Lys Glu Glu Phe Glu Tyr Ile Ala Phe Arg Cys
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 Ala Tyr Cys Phe Phe Leu Asn Pro Ala Arg Lys Thr Arg Pro Gln Ala
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 Thr Glu Gln Thr Asp Asp Lys Ile Pro Ala Thr Glu Gln Thr Asn Gln
 130 135 140
 Val Ile Glu Lys Ala Ser Asp Ser Glu Glu Pro Glu Glu Lys Gln Glu
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<210> 4451
 <211> 1637
 <212> DNA
 <213> Homo sapiens

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<210> 4452

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4452

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Lys Tyr Asn	Phe Tyr Leu Pro	Phe Phe Phe Gly Pro	Ile Met Thr
	35	40	45
Phe Asp Arg	Phe His Ala Gln Val	Ser Gln Val Glu Pro	Val Arg Arg
	50	55	60
Glu Gly Glu	Leu Trp His Ile	Arg Ala Gln Ala Gly	Leu Ser Val Val
65	70	75	80
Ala Ile Met	Ala Val Asp Ile	Phe Phe His Phe Phe	Tyr Ile Leu Thr
	85	90	95
Ile Pro Ser	Asp Leu Lys Phe	Ala Asn Arg Leu Pro	Asp Ser Ala Leu
	100	105	110
Ala Gly Leu	Ala Tyr Ser Asn	Leu Val Tyr Asp	Trp Val Lys Ala Ala
	115	120	125
Val Leu Phe	Gly Val Val Asn	Thr Val Ala Cys	Leu Asp His Leu Asp
	130	135	140
Pro Pro Gln	Pro Pro Lys Cys	Ile Thr Ala Leu Tyr	Val Phe Ala Glu
145	150	155	160
Thr His Phe	Asp Arg Gly Ile	Asn Asp Trp Leu	Cys Lys Tyr Val Tyr
	165	170	175
Asn His Ile	Gly Gly Glu His	Ser Ala Val Ile	Pro Glu Leu Ala Ala
	180	185	190
Thr Val Ala	Thr Phe Ala Ile	Thr Thr Leu Trp	Leu Gly Pro Cys Asp
	195	200	205
Ile Val Tyr	Leu Trp Ser Phe	Leu Asn Cys Phe	Gly Leu Asn Phe Glu
	210	215	220
Leu Trp Met	Gln Lys Leu Ala	Glu Trp Gly Pro	Leu Ala Arg Ile Glu
225	230	235	240
Ala Ser Leu	Ser Val Gln Met	Ser Arg Arg Val	Arg Ala Leu Phe Gly
	245	250	255
Ala Met Asn	Phe Trp Ala Ile	Ile Met Tyr Asn	Leu Val Ser Leu Asn
	260	265	270
Ser Leu Lys	Phe Thr Glu Leu	Val Ala Arg Arg	Leu Leu Thr Gly
	275	280	285
Phe Pro Gln	Thr Thr Leu Ser	Ile Leu Phe Val	Thr Tyr Cys Gly Val
	290	295	300
Gln Leu Val	Lys Glu Arg Glu	Arg Thr Leu Ala	Leu Glu Glu Glu Gln
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<210> 4453

<211> 685

<212> DNA

<213> Homo sapiens

<400> 4453

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120
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180

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 360
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 420
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 480
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 540
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<210> 4454

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4454

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Pro	Gly	Trp	His	Ile	Tyr	Thr	His	Ser	Gly	Ser	Glu	Arg	Leu	Val	Asn	20	25	30	
Gln	Lys	Trp	Ala	Ala	Gly	Ala	Lys	Ala	Tyr	Leu	Asn	Lys	Gly	Ser	Lys	35	40	45	
Gly	Pro	Leu	Ser	Leu	Gly	Ser	Ser	Ile	Gln	Pro	Leu	Ser	Gln	Gln	Arg	50	55	60	
Gln	Asp	Cys	Gly	Pro	Leu	Cys	Phe	Leu	Asn	Arg	Ala	Gln	Gly	Ser	Gln	65	70	75	80
Gly	Met	Pro	Ser	Leu	Gln	His	Ser	Thr	Leu	Trp	Ser	Gln	Trp	Ser	Arg	85	90	95	
Arg	Ser	Ser	Leu	Lys	Tyr	Tyr	Tyr	Arg	Gly	Glu	Arg	Pro	Ile	Leu	Ala	100	105	110	
Met	Leu	Leu	Tyr	Leu	Pro	Arg	Pro	Lys	Thr	Val	Leu	Cys	Ser	Phe	Ser	115	120	125	
Cys	Ser	Glu	Ile	Arg	Ser	Gln	Asn	Ser	Arg	Arg	His	Ser	Phe	Gly	Lys	130	135	140	
Lys	Gly	His	Ala	Phe	Val	Leu	Tyr	Leu	Ile	Leu	Val	Ser	Glu	Ala	Leu	145	150	155	160
Ile	Pro	Val	Asp	Cys	Gly	Leu	Arg	Trp	Ser	Pro	Pro	Gln	Asp	Pro	Gln	165	170	175	
Leu	Gln	Arg	Gln	Arg	Arg	Met	Lys	Glu	Glu	Gln	Pro	Pro	Gln	Asp	Leu	180	185	190	
Leu	His	Trp	Glu	Pro	His	Pro	Thr	Phe	Ser	Val	Pro	Phe	Thr	Arg		195	200	205	

<210> 4455

<211> 882

<212> DNA

<213> Homo sapiens

<400> 4455

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 120
 aagctgttca ttgggcagat cccccgcaac ctggatgaga aggacctcaa gcccctcttc
 180
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 300
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 360
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 420
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 720
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<210> 4456

<211> 261

<212> PRT

<213> Homo sapiens

<400> 4456

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			20					25					30		
Ile	Tyr	Glu	Leu	Thr	Val	Leu	Lys	Asp	Arg	Phe	Thr	Gly	Met	His	Lys
		35					40					45			
Gly	Cys	Ala	Phe	Leu	Thr	Tyr	Cys	Glu	Arg	Glu	Ser	Ala	Leu	Lys	Ala
		50					55				60				
Gln	Ser	Ala	Leu	His	Glu	Gln	Lys	Thr	Leu	Pro	Gly	Met	Asn	Arg	Pro
65				70					75					80	
Ile	Gln	Val	Lys	Pro	Ala	Asp	Ser	Glu	Ser	Arg	Gly	Asp	Ser	Ser	Cys
			85					90						95	
Leu	Arg	Gln	Pro	Pro	Ser	His	Arg	Lys	Leu	Phe	Val	Gly	Met	Leu	Asn

	100		105		110										
Lys	Gln	Gln	Ser	Glu	Asp	Asp	Val	Arg	Arg	Leu	Phe	Glu	Ala	Phe	Gly
	115						120					125			
Asn	Ile	Glu	Glu	Cys	Thr	Ile	Leu	Arg	Gly	Pro	Asp	Gly	Asn	Ser	Lys
	130						135					140			
Gly	Cys	Ala	Phe	Val	Lys	Tyr	Ser	Ser	His	Ala	Glu	Ala	Gln	Ala	Ala
145					150					155					160
Ile	Asn	Ala	Leu	His	Gly	Ser	Gln	Thr	Met	Pro	Gly	Ala	Ser	Ser	Ser
			165						170					175	
Leu	Val	Val	Lys	Phe	Ala	Asp	Thr	Asp	Lys	Glu	Arg	Thr	Met	Arg	Arg
		180						185					190		
Met	Gln	Gln	Met	Ala	Gly	Gln	Met	Gly	Met	Phe	Asn	Pro	Met	Ala	Ile
	195						200					205			
Pro	Phe	Gly	Ala	Tyr	Gly	Ala	Tyr	Ala	Gln	Ala	Leu	Met	Gln	Gln	Gln
	210					215					220				
Ala	Ala	Leu	Met	Ala	Ser	Val	Ala	Gln	Gly	Gly	Tyr	Leu	Asn	Pro	Met
225					230					235					240
Ala	Ala	Phe	Ala	Ala	Ala	Gln	Met	Gln	Gln	Met	Ala	Ala	Leu	Asn	Met
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<210> 4457

<211> 1491

<212> DNA

<213> Homo sapiens

<400> 4457

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 1491

<210> 4458

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4458

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Gln	Leu	Leu	Met	Tyr	Gln	Gln	His	Thr	Ser	His	Tyr	Asp	Leu	Glu	Arg
			20					25					30		
Lys	Gly	Gly	Tyr	Leu	Met	Leu	Ser	Phe	Ile	Asp	Phe	Cys	Pro	Phe	Ser
		35					40					45			
Val	Met	Arg	Leu	Arg	Ser	Leu	Pro	Ser	Pro	Gln	Arg	Tyr	Thr	Arg	Gln
	50					55					60				
Glu	Arg	Tyr	Arg	Ala	Arg	Pro	Pro	Arg	Val	Leu	Glu	Arg	Ser	Gly	Phe
65					70					75					80
His	Asn	Glu	Asn	Ser	Leu	Ala	Ile	Tyr	Gln	Gly	Leu	Val	Tyr	Tyr	Leu
				85					90					95	
Leu	Trp	Leu	His	Ser	Val	Tyr	Asp	Lys	Asp	Tyr	Tyr	Phe	Phe	Leu	Ala
			100					105					110		
Ser	Asn	Trp	Arg	Ser	Ala	Gly	Gly	Val	Ser	Ile	Glu	Met	Asp	Ser	Tyr
		115					120					125			
Glu	Lys	Ile	Tyr	Asn	Leu	Glu	Ser	Ala	Tyr	Glu	Leu	Pro	Glu	Arg	Ile
	130					135					140				
Phe	Leu	Asp	Lys	Gly	Thr	Glu	Tyr	Ser	Phe	Ala	Ile	Phe	Leu	Ser	Ala
145					150					155				160	
Gln	Gly	His	Ser	Phe	Arg	Thr	Gln	Ser	Glu	Leu	Gly	Leu	Arg	Gly	Thr
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<210> 4459
<211> 1114
<212> DNA
<213> Homo sapiens
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360
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480
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540
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 660
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 720
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 780
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 1020
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<210> 4460

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4460

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Ala	Pro	Pro	Ser	Arg	Ala	Ala	Arg	Arg	Ala	Arg	Ala	Leu	Ser	Pro	Ser
			20					25					30		
Gly	Lys	Glu	Arg	Ala	Ala	Pro	Ser	Gln	Gly	Ser	Pro	Arg	Cys	Cys	Pro
		35				40					45				
Leu	Ser	Pro	Gly	Ser	Ala	Arg	Gly	Ala	Arg	Gly	Glu	Asn	Gln	Pro	Arg
	50					55					60				
Ser	Arg	Gly	Arg	Ala	Ala	Asn	Gly	Arg	Ala	Pro	Pro	Gly	Pro	Leu	Thr
65				70					75					80	
Arg	Arg	Leu	Ala	Gly	Arg	Ala	Arg	Thr	Pro	Arg	Pro	Lys	Trp	Leu	Phe
			85					90						95	
Gln	Gly	Ala	Ser	Gln	Ala	Gly	Glu	Leu	Gly	Lys	Gln	Arg	Arg	Met	Pro
			100					105						110	
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		115					120								

<210> 4461

<211> 488

<212> DNA

<213> Homo sapiens

<400> 4461

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 120

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 360
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<210> 4462

<211> 96

<212> PRT

<213> Homo sapiens

<400> 4462

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Asn	Pro	Tyr	Asn	Asn	Leu	Ile	Phe	Ile	Trp	Gly	Asn	Phe	Leu	Leu	Gln
			20					25					30		
Ser	Ser	Asn	Lys	Glu	Asn	Phe	Ile	Tyr	Leu	Ala	Asp	Phe	Pro	Lys	Glu
		35				40					45				
Leu	Ser	Ile	Lys	Tyr	Met	Ala	Arg	Ser	Phe	Arg	Gly	Ala	Val	Ala	Ile
	50					55				60					
Val	Thr	Glu	Thr	Glu	Glu	Val	Gly	Cys	Pro	Ala	Leu	Leu	Pro	Ile	Pro
65					70					75				80	
Ser	Leu	Pro	Thr	Pro	Lys	Pro	Gln	Gly	Pro	Leu	Phe	Pro	Pro	Ser	Gln
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<210> 4463

<211> 2662

<212> DNA

<213> Homo sapiens

<400> 4463

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 180
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<210> 4464

<211> 519

<212> PRT

<213> Homo sapiens

<400> 4464

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Glu	Leu	Arg	Arg	Glu	Arg	Arg	Met	Val	Cys	Val	Glu	Tyr	Pro	Gly	Val	20	25	30	
Val	Arg	Asp	Val	Ala	Lys	Met	Leu	Pro	Thr	Leu	Gly	Gly	Glu	Glu	Gly	35	40	45	
Val	Ser	Arg	Ile	Tyr	Ala	Asp	Pro	Thr	Lys	Arg	Leu	Glu	Leu	Tyr	Phe	50	55	60	
Arg	Pro	Lys	Asp	Pro	Tyr	Cys	His	Pro	Val	Cys	Ala	Asn	Arg	Phe	Ser	65	70	75	80
Thr	Ser	Ser	Leu	Leu	Leu	Arg	Ile	Arg	Lys	Arg	Thr	Arg	Arg	Gln	Lys	85	90	95	
Gly	Val	Leu	Gly	Thr	Glu	Ala	His	Ser	Glu	Val	Thr	Phe	Asp	Met	Glu	100	105	110	
Ile	Leu	Gly	Ile	Ile	Ser	Thr	Ile	Tyr	Lys	Phe	Gln	Gly	Met	Ser	Asp	115	120	125	
Phe	Gln	Tyr	Leu	Ala	Val	His	Thr	Glu	Ala	Gly	Gly	Lys	His	Thr	Ser	130	135	140	
Met	Tyr	Asp	Lys	Val	Leu	Met	Leu	Arg	Pro	Glu	Lys	Glu	Ala	Phe	Phe	145	150	155	160
His	Gln	Glu	Leu	Pro	Leu	Tyr	Ile	Pro	Pro	Ile	Phe	Ser	Arg	Leu		165	170	175	
Asp	Ala	Pro	Val	Asp	Tyr	Phe	Tyr	Arg	Pro	Glu	Thr	Gln	His	Arg	Glu	180	185	190	
Gly	Tyr	Asn	Asn	Pro	Pro	Ile	Ser	Gly	Glu	Asn	Leu	Ile	Gly	Leu	Ser				

195	200	205
Arg Ala Arg Arg Pro His Asn Ala Ile Phe Val Asn Phe Glu Asp Glu		
210	215	220
Glu Val Pro Lys Gln Pro Leu Glu Ala Ala Ala Gln Thr Trp Arg Arg		
225	230	235
Val Cys Thr Asn Pro Val Asp Arg Lys Val Glu Glu Glu Leu Arg Lys		
245	250	255
Leu Phe Asp Ile Arg Pro Ile Trp Ser Arg Asn Ala Val Lys Ala Asn		
260	265	270
Ile Ser Val His Pro Asp Lys Leu Lys Val Leu Leu Pro Phe Ile Ala		
275	280	285
Tyr Tyr Met Ile Thr Gly Pro Trp Arg Ser Leu Trp Ile Arg Phe Gly		
290	295	300
Tyr Asp Pro Arg Lys Asn Pro Asp Ala Lys Ile Tyr Gln Val Leu Asp		
305	310	315
Phe Arg Ile Arg Cys Gly Met Lys His Gly Tyr Ala Pro Ser Asp Leu		
325	330	335
Pro Val Lys Ala Lys Arg Ser Thr Tyr Asn Tyr Ser Leu Pro Ile Thr		
340	345	350
Val Lys Lys Thr Ser Ser Gln Leu Val Thr Met His Asp Leu Lys Gln		
355	360	365
Gly Leu Gly Arg Ser Gly Thr Ser Gly Ala Arg Lys Pro Ala Ser Ser		
370	375	380
Lys Tyr Lys Leu Lys Asp Ser Val Tyr Ile Phe Arg Glu Gly Ala Leu		
385	390	395
Pro Pro Tyr Arg Gln Met Phe Tyr Gln Leu Cys Asp Leu Asn Val Glu		
405	410	415
Glu Leu Gln Lys Ile Ile His Arg Asn Asp Gly Ala Glu Asn Ser Cys		
420	425	430
Thr Glu Arg Asp Gly Trp Cys Leu Pro Lys Thr Ser Asp Glu Leu Arg		
435	440	445
Asp Thr Met Ser Leu Met Ile Arg Gln Thr Ile Arg Ser Lys Arg Pro		
450	455	460
Ala Leu Phe Ser Ser Ser Ala Lys Ala Asp Gly Gly Lys Glu Gln Leu		
465	470	475
Thr Tyr Glu Ser Gly Glu Asp Glu Glu Asp Glu Glu Glu Glu Glu		
485	490	495
Glu Glu Glu Asp Phe Lys Pro Ser Asp Gly Ser Glu Asn Glu Met Glu		
500	505	510
Thr Glu Ile Leu Asp Tyr Val		
515		

<210> 4465

<211> 1291

<212> DNA

<213> Homo sapiens

<400> 4465

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120
ngcgccgtgg ggctagtggg cgccgtgaag gccaccgacc agtactgcgc ccgcctccgc
180

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caggccggct cggccgcgcc ccggccaccg cgggcccagc agccacagca gccatcccaa
 240
 gagaagttct acagcatggc tgccagatca agctactctt agaaattccg gagaagatct
 300
 ggagctcgat ggaagcctct cagtgtctcc acgccacacn agctctacct gctctgctgc
 360
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 420
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 480
 catgaaagca agatgttgct caaatgccaa ggtgtgtctg accaagctgt ggccgaggcc
 540
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 660
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 960
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 1020
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<210> 4466

<211> 93

<212> PRT

<213> Homo sapiens

<400> 4466

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Leu	Arg	Gln	Met	Val	Gly	Glu	Arg	Tyr	Arg	Asp	Leu	Ile	Glu	Ala	Xaa
			20					25					30		
Asp	Thr	Ile	Gly	Gln	Met	Arg	Arg	Xaa	Ala	Val	Gly	Leu	Val	Asp	Ala
		35				40						45			
Val	Lys	Ala	Thr	Asp	Gln	Tyr	Cys	Ala	Arg	Leu	Arg	Gln	Ala	Gly	Ser
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<210> 4468
<211> 170
<212> PRT
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<213> Homo sapiens

<400> 4468

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Lys Glu His Leu Ser Gln Leu Glu Ser Pro Val Val Phe Cys His Asn
      20           25           30
Asp Leu Leu Cys Lys Asn Ile Ile Tyr Asp Ser Ile Lys Gly His Val
      35           40           45
Arg Phe Ile Asp Tyr Glu Tyr Ala Gly Tyr Asn Tyr Gln Ala Phe Asp
      50           55           60
Ile Gly Asn His Phe Asn Glu Phe Ala Gly Val Asn Glu Val Asp Tyr
      65           70           75           80
Cys Leu Tyr Pro Ala Arg Glu Thr Gln Leu Gln Trp Leu His Tyr Tyr
      85           90           95
Leu Gln Ala Gln Lys Gly Met Ala Val Thr Pro Arg Glu Val Gln Arg
      100          105          110
Leu Tyr Val Gln Val Asn Lys Phe Ala Leu Ala Ser His Phe Phe Trp
      115          120          125
Ala Leu Trp Ala Leu Ile Gln Asn Gln Tyr Ser Thr Ile Asp Phe Asp
      130          135          140
Phe Leu Arg Tyr Ala Val Ile Arg Phe Asn Gln Tyr Phe Lys Val Lys
      145          150          155          160
Pro Gln Ala Ser Ala Leu Glu Met Pro Lys
      165          170

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<210> 4469

<211> 409

<212> DNA

<213> Homo sapiens

<400> 4469

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120
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409

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<210> 4470

<211> 55

<212> PRT

<213> Homo sapiens

<400> 4470

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Ile Tyr Asp Ala Gln His Ala Asn Leu Ala Gly Thr Leu Ser Gly His

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Ala Ser Trp Val Leu Asn Val Ala Phe Cys Pro Asp Asp Thr His Phe			
	20	25	30
Val Ser Arg Ser Gln Cys Trp Ser Gly Leu Gly Trp Pro Arg Gln Leu			
	35	40	45
Glu Ser Arg Arg Trp Thr Thr			
50	55		

<210> 4471

<211> 1771

<212> DNA

<213> Homo sapiens

<400> 4471

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180
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240
cagggcgcac tataaatgag cggctgcgca cgcaggggca ctgcaacgcg gaggagcagg
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360
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480
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1200

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 1771

<210> 4472
 <211> 160
 <212> PRT
 <213> Homo sapiens

<400> 4472
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 20 25 30
 Phe Gly Glu Gly Leu Leu Glu Ala Glu Leu Ala Ala Leu Cys Pro Thr
 35 40 45
 Thr Leu Ala Pro Tyr Tyr Leu Arg Ala Pro Ser Val Ala Leu Pro Val
 50 55 60
 Ala Gln Val Pro Thr Asp Pro Gly His Phe Ser Val Leu Leu Asp Val
 65 70 75 80
 Lys His Phe Ser Pro Glu Glu Ile Ala Val Lys Val Val Gly Glu His
 85 90 95
 Val Glu Val His Ala Arg His Glu Glu Arg Pro Asp Glu His Gly Phe
 100 105 110
 Val Ala Arg Glu Phe His Arg Arg Tyr Arg Leu Pro Pro Gly Val Asp
 115 120 125
 Pro Ala Ala Val Thr Ser Ala Leu Ser Pro Glu Gly Val Leu Ser Ile
 130 135 140
 Gln Ala Ala Pro Ala Ser Ala Gln Ala Pro Pro Pro Ala Ala Ala Lys
 145 150 155 160

<210> 4473
 <211> 1255
 <212> DNA
 <213> Homo sapiens

<400> 4473

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 180
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 240
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 300
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 360
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 420
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 660
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 720
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 780
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<210> 4474

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4474

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Asp	Ala	Ile	Trp	Ser	Val	Ala	Trp	Gly	Thr	Asn	Lys	Lys	Glu	Asn	Ser
			20					25					30		
Glu	Thr	Val	Val	Thr	Gly	Ser	Leu	Asp	Asp	Leu	Val	Lys	Val	Trp	Lys

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360
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<210> 4476
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4476
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 35 40 45
 Gly His Thr Glu Gly Ser Val Ala Leu His Gly Ser Pro Ala Ser Arg
 50 55 60
 Gln Thr Ser Gln Arg Trp Thr Val Cys Gln Gly Trp Asp Trp Asn Ser
 65 70 75 80
 Arg Arg Ser Leu Asp Thr Ser Gly Ile Arg Glu Thr Ser Leu Gly Arg
 85 90 95
 Tyr Pro Leu Pro Ser Ser Arg Val His Ala
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<210> 4477
 <211> 1153
 <212> DNA
 <213> Homo sapiens

<400> 4477
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 960
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 1020
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<210> 4478
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 4478
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 Lys Thr Glu Tyr Gln Glu Ser Glu Phe Leu Ser Pro Ala Tyr Ser Asp
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 Lys Pro Leu Gly Leu Cys Glu Asn Ala Asp Val Leu Asp Arg Arg Leu
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 Trp Glu Gly Asn Met Lys Glu Glu Asn Asn Asn Glu Ser Lys Ser Thr
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 Ser Ile Pro Gly His Phe Ile His Phe Gln Asp Tyr Cys Ala Pro Ile
 65 70 75 80
 Ser Thr Leu Met Val Cys Val Asp Thr Ala Gln Gly Cys Ile Ser Leu
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<210> 4479
 <211> 2158
 <212> DNA
 <213> Homo sapiens

<400> 4479
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<210> 4480

<211> 308

<212> PRT

<213> Homo sapiens

<400> 4480

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Asp	Tyr	Gly	Glu	Pro	Glu	Arg	Gly	Gly	Gly	Pro	Arg	Ala	Ala	Gln	Gly	35	40	45	
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Arg	Leu	Lys	Gln	Asp	Tyr	Leu	Arg	Ile	Lys	Lys	Asp	Pro	Val	Pro	Tyr	65	70	75	80
Ile	Cys	Ala	Glu	Pro	Leu	Pro	Ser	Asn	Ile	Leu	Glu	Trp	His	Tyr	Val	85	90	95	
Val	Arg	Gly	Pro	Glu	Met	Thr	Pro	Tyr	Glu	Gly	Gly	Tyr	Tyr	His	Gly	100	105	110	
Lys	Leu	Ile	Phe	Pro	Arg	Glu	Phe	Pro	Phe	Lys	Pro	Pro	Ser	Ile	Tyr	115	120	125	
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Ser	Ile	Thr	Asp	Phe	His	Pro	Asp	Thr	Trp	Asn	Pro	Ala	Trp	Ser	Val	145	150	155	160
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Thr	Leu	Gly	Ser	Ile	Glu	Thr	Ser	Asp	Phe	Thr	Lys	Arg	Gln	Leu	Ala	180	185	190	
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Phe	Pro	Glu	Val	Val	Glu	Glu	Ile	Lys	Gln	Lys	Gln	Lys	Ala	Gln	Asp	210	215	220	
Glu	Leu	Ser	Ser	Arg	Pro	Gln	Thr	Leu	Pro	Leu	Pro	Asp	Val	Val	Pro	225	230	235	240
Asp	Gly	Glu	Thr	His	Leu	Val	Gln	Asn	Gly	Ile	Gln	Leu	Leu	Asn	Gly	245	250	255	
His	Ala	Pro	Gly	Ala	Val	Pro	Asn	Leu	Ala	Gly	Leu	Gln	Gln	Ala	Asn	260	265	270	
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<210> 4484

<211> 452

<212> PRT

<213> Homo sapiens

<400> 4484

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			20					25					30		
Lys	Pro	Leu	Ile	Trp	Tyr	Pro	Leu	Asn	Leu	Leu	Glu	Arg	Val	Gly	Phe
			35					40				45			
Glu	Glu	Val	Ile	Val	Val	Thr	Thr	Arg	Asp	Val	Gln	Lys	Ala	Leu	Cys
	50					55				60					
Ala	Glu	Phe	Lys	Met	Lys	Met	Lys	Pro	Asp	Ile	Val	Cys	Ile	Pro	Asp
65					70					75				80	
Asp	Ala	Asp	Met	Gly	Thr	Ala	Asp	Ser	Leu	Arg	Tyr	Ile	Tyr	Pro	Lys
			85					90						95	
Leu	Lys	Thr	Asp	Val	Leu	Val	Leu	Ser	Cys	Asp	Leu	Ile	Thr	Asp	Val
			100					105					110		
Ala	Leu	His	Glu	Val	Val	Asp	Leu	Phe	Arg	Ala	Tyr	Asp	Ala	Ser	Leu
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Ala	Met	Leu	Met	Arg	Lys	Gly	Gln	Asp	Ser	Ile	Glu	Pro	Val	Pro	Gly
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Asp	Glu	Glu	Leu	Val	Ile	Lys	Gly	Ser	Ile	Leu	Gln	Lys	His	Pro	Arg
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Ile	Arg	Phe	His	Thr	Gly	Leu	Val	Asp	Ala	His	Leu	Tyr	Cys	Leu	Lys
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Lys	Tyr	Ile	Val	Asp	Phe	Leu	Met	Glu	Asn	Gly	Ser	Ile	Thr	Ser	Ile
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Arg	Ser	Glu	Leu	Ile	Pro	Tyr	Leu	Val	Arg	Lys	Gln	Phe	Ser	Ser	Ala
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Ser	Ser	Gln	Gln	Gly	Gln	Glu	Glu	Lys	Glu	Glu	Asp	Leu	Lys	Lys	Lys
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Glu	Leu	Lys	Ser	Leu	Asp	Ile	Tyr	Ser	Phe	Ile	Lys	Glu	Ala	Asn	Thr
			260					265					270		
Leu	Asn	Leu	Ala	Pro	Tyr	Asp	Ala	Cys	Trp	Asn	Ala	Cys	Arg	Gly	Asp
		275				280						285			
Arg	Trp	Glu	Asp	Leu	Ser	Arg	Ser	Gln	Val	Arg	Cys	Tyr	Val	His	Ile
		290				295					300				
Met	Lys	Glu	Gly	Leu	Cys	Ser	Arg	Val	Ser	Thr	Leu	Gly	Leu	Tyr	Met
305					310					315				320	
Glu	Ala	Asn	Arg	Gln	Val	Pro	Lys	Leu	Leu	Ser	Ala	Leu	Cys	Pro	Glu

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Glu Pro Pro Val His Ser Ser Ala Gln Ile Val Ser Lys His Leu Val
          340          345          350
Gly Val Asp Ser Leu Ile Gly Pro Glu Thr Gln Ile Gly Glu Lys Ser
          355          360          365
Ser Ile Lys Arg Ser Val Ile Gly Ser Ser Cys Leu Ile Lys Asp Arg
          370          375          380
Val Thr Ile Thr Asn Cys Leu Leu Met Asn Ser Val Thr Val Glu Glu
385          390          395          400
Gly Ser Asn Ile Gln Gly Ser Val Ile Cys Asn Asn Ala Val Ile Glu
          405          410          415
Lys Gly Ala Asp Ile Lys Asp Cys Leu Ile Gly Ser Gly Gln Arg Ile
          420          425          430
Glu Ala Lys Ala Lys Arg Val Asn Glu Val Ile Val Gly Asn Asp Gln
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Leu Met Glu Ile
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<210> 4485
 <211> 513
 <212> DNA
 <213> Homo sapiens

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<400> 4485
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<210> 4486
 <211> 100
 <212> PRT
 <213> Homo sapiens

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<400> 4486
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Pro Phe Val Phe Arg Pro Thr Gly Leu Ile Ala Pro Cys Ala Cys Pro
          20          25          30
Ser Ile Ser Leu Pro Ser Gly Ala Pro Gly Gly Gln Gly Asp Leu Leu

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          35          40          45
Pro Gln Ala Val Pro His Leu Ile Pro Lys Val Ser Ser Asn Glu Val
          50          55          60
Asp Ser Phe Lys Tyr Trp Trp Phe Trp Leu Ala Arg Val Ser Glu Gly
65          70          75          80
Thr Glu Lys Thr Pro Lys Cys Arg Val Cys Asp Thr Ala Gln Ser Ser
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<210> 4487

<211> 387

<212> DNA

<213> Homo sapiens

<400> 4487

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120
ggaaagtttg atattttatt caatagagtt caagcaattc agaagaaaag tggaaacttt
180
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240
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<210> 4488

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4488

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Gln Ser Gln Pro Ile Leu Phe Gly Gln Met Ala Gln Lys Pro Leu Arg
          20          25          30
Leu Leu Ala Cys Gly Asp Val Glu Gly Lys Phe Asp Ile Leu Phe Asn
          35          40          45
Arg Val Gln Ala Ile Gln Lys Lys Ser Gly Asn Phe Asp Leu Leu Leu
          50          55          60
Cys Val Gly Asn Phe Phe Gly Ser Thr Gln Asp Ala Glu Trp Glu Glu
65          70          75          80
Tyr Lys Thr Gly Ile Lys Lys Ala Pro Ile Gln Thr Tyr Val Leu Gly
          85          90          95
Ala Asn Asn Gln Glu Thr Val Lys Tyr Phe Gln Asp Ala Asp Gly Cys
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Glu Leu Ala Glu Asn Ile Thr Tyr Leu Gly Arg Lys Gly Ile Phe Thr
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<210> 4489
<211> 2390
<212> DNA
<213> Homo sapiens

<400> 4489
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<210> 4490

<211> 383

<212> PRT

<213> Homo sapiens

<400> 4490

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Leu	Leu	Trp	Lys	Leu	Met	Trp	Arg	Glu	Pro	Gly	Ala	Tyr	Ile	Phe	Leu
		35					40					45			
Gln	Asn	Pro	Pro	Gly	Leu	Pro	Ser	Ile	Ala	Val	Cys	Trp	Phe	Val	Gly
	50				55						60				
Cys	Leu	Cys	Gly	Ser	Lys	Leu	Val	Ile	Asp	Trp	His	Asn	Tyr	Gly	Tyr
65				70					75					80	
Ser	Ile	Met	Gly	Leu	Val	His	Gly	Pro	Asn	His	Pro	Leu	Val	Leu	Leu
			85					90						95	
Ala	Lys	Trp	Tyr	Glu	Lys	Phe	Phe	Gly	Arg	Leu	Ser	His	Leu	Asn	Leu

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<210> 4491
<211> 6712
<212> DNA
<213> Homo sapiens
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<212> PRT

<213> Homo sapiens

<400> 4492

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<211> 1829

<212> DNA

<213> Homo sapiens

<400> 4493

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<211> 560

<212> PRT

<213> Homo sapiens

<400> 4496

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			20					25						30	
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3680

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<210> 4498
 <211> 280
 <212> PRT
 <213> Homo sapiens

<400> 4498
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 35 40 45
 Pro Gly Asn Pro Val Gln Gly Gln Cys Gly Glu Glu Glu Asp Ser Leu

50	55	60
Asp Leu Ser Ser Thr Phe Val Ser Leu Ala Leu Arg Lys Val Gly Asp		
65	70	75
Trp Pro Leu Ser Ala Arg Arg Glu Lys Gly Leu Asn Gln Glu Pro Gln		80
	85	90
Gly Arg Gly Leu Ala Leu Gln Lys Met Gly Gln Glu Glu Glu Ser Pro		95
	100	105
Pro Arg Glu Glu Arg Pro Gln Gln Ser Pro Lys Ala Ser Pro Gly Leu		110
	115	120
Leu Ala Ala Ala Leu Gln Gln Ser Gln Glu Leu Ala Lys Leu Gly Thr		125
	130	135
Ser Phe Ala Gln Asn Gly Phe Tyr His Glu Ala Val Val Leu Phe Thr		140
145	150	155
Gln Ala Leu Lys Leu Asn Pro Gln Asp His Arg Leu Phe Gly Asn Arg		160
	165	170
Ser Phe Cys His Glu Arg Leu Gly Gln Pro Ala Trp Ala Leu Ala Asp		175
	180	185
Ala Gln Val Ala Leu Thr Leu Arg Pro Gly Trp Pro Arg Gly Leu Phe		190
	195	200
Arg Leu Gly Lys Ala Leu Met Gly Leu Gln Arg Phe Arg Glu Ala Ala		205
	210	215
Ala Val Phe Gln Glu Thr Leu Arg Gly Gly Ser Gln Pro Asp Ala Ala		220
225	230	235
Arg Glu Leu Arg Ser Cys Leu Leu His Leu Thr Leu Gln Gly Gln Arg		240
	245	250
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<210> 4499

<211> 562

<212> DNA

<213> Homo sapiens

<400> 4499

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420
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<210> 4500
<211> 91
<212> PRT
<213> Homo sapiens

<400> 4500
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His Gly Leu Ser Pro Leu Asn Val Ile Ala Glu Asp Gly Thr Met Thr
35 40 45
Ser Leu Cys Gly Asp Trp Leu Gln Gly Leu His Arg Phe Val Ala Arg
50 55 60
Glu Lys Ile Met Ser Val Leu Ser Glu Arg Gly Leu Phe Arg Gly Leu
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Gln Asn His Pro Met Val Leu Pro Ile Cys Arg
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<210> 4501
<211> 1866
<212> DNA
<213> Homo sapiens

<400> 4501
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<210> 4502

<211> 267

<212> PRT

<213> Homo sapiens

<400> 4502

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			20					25					30		
Phe	Asp	Glu	Thr	Ile	Val	Asp	Glu	Asn	Ser	Asp	Asp	Ser	Ile	Val	Arg
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Glu	Gln	Gly	Val	Arg	Pro	Arg	Asp	Leu	Ser	Ala	Ile	Tyr	Glu	Ala	Ile
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Lys	His	Lys	Val	Leu	Ser	Asp	Tyr	Leu	Arg	Glu	Arg	Ala	His	Asp	Gly
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Val	His	Phe	Glu	Arg	Leu	Phe	Tyr	Val	Gly	Asp	Gly	Ala	Asn	Asp	Phe
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Cys	Pro	Met	Gly	Leu	Leu	Ala	Gly	Gly	Asp	Val	Ala	Phe	Pro	Arg	Arg
	210					215					220				
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Ser	Ser	Phe	Arg	Ala	Ser	Val	Val	Pro	Trp	Glu	Thr	Ala	Ala	Asp	Val
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<210> 4503

<211> 1983

<212> DNA

<213> Homo sapiens

<400> 4503

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660

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1983

<210> 4504

<211> 250

<212> PRT

<213> Homo sapiens

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 35 40 45
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 50 55 60
 Ala Ala Phe Ser Leu Ala Glu Ala Lys Phe Thr Ala Gly Asp Phe Ser
 65 70 75 80
 Thr Thr Val Ile Gln Asn Val Asn Lys Ala Gln Val Lys Ile Arg Ala
 85 90 95
 Lys Lys Asp Asn Val Ala Gly Val Thr Leu Pro Val Phe Glu His Tyr
 100 105 110
 His Glu Gly Thr Asp Ser Tyr Glu Leu Thr Gly Leu Ala Arg Gly Gly
 115 120 125
 Glu Gln Leu Ala Lys Leu Lys Arg Asn Tyr Ala Lys Ala Val Glu Leu
 130 135 140
 Leu Val Glu Leu Ala Ser Leu Gln Thr Ser Phe Val Thr Leu Asp Glu
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 165 170 175
 Tyr Val Ile Ile Pro Arg Ile Glu Arg Thr Leu Ala Tyr Ile Ile Thr
 180 185 190
 Glu Leu Asp Glu Arg Glu Arg Glu Glu Phe Tyr Arg Leu Lys Lys Ile
 195 200 205
 Gln Glu Lys Lys Lys Ile Leu Lys Glu Lys Ser Glu Lys Asp Leu Glu
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<210> 4505

<211> 379

<212> DNA

<213> Homo sapiens

<400> 4505

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<210> 4506

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4506

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Arg Arg Gln Trp Trp Leu Trp Leu Ser Ser Leu Ser Asn Gln Ile His
        35           40           45
Pro Thr Pro Ser Ala Gln Gly Gln Ala Ala Leu Arg Gln Thr Cys Pro
      50           55           60
His Leu Arg Glu Ser Gly Pro Leu Ser Val Arg His Val Ala Leu Leu
65           70           75           80
Ala Leu Glu Thr Ala Ser His Pro Ser Gly Pro His Thr Asn Gln Ala
          85           90           95
Pro Ser Pro Ala Thr Ser Pro Lys Cys Pro Ser Glu Pro Ala Thr Pro
        100          105          110
Ser Ser Thr Asp Ser Leu Ile Lys Ile
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<210> 4507

<211> 3664

<212> DNA

<213> Homo sapiens

<400> 4507

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<211> 3266

<212> PRT

<213> Homo sapiens

<400> 4510

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His	Asp	Leu	Arg	Asn	Ile	Phe	Gln	Arg	Phe	Gly	Glu	Ile	Val	Asp	Ile
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Cys	Asp	Ile	Ala	Ser	Val	Cys	Lys	Ala	Ile	Lys	Lys	Met	Asp	Gly	Glu
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Phe	Asp	Arg	Leu	Lys	Gly	Met	Ala	Leu	Val	Leu	Tyr	Asn	Glu	Ile	Glu
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Tyr	Ala	Gln	Ala	Ala	Val	Lys	Glu	Thr	Lys	Gly	Arg	Lys	Ile	Gly	Gly
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Asn	Lys	Ile	Lys	Val	Asp	Phe	Ala	Asn	Arg	Glu	Ser	Gln	Leu	Ala	Phe
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Glu	Asp	Ser	Arg	Arg	Asp	Tyr	Pro	Ala	Arg	Gly	Arg	Glu	Phe	Tyr	Ser
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Glu	Trp	Glu	Thr	Tyr	Gln	Gly	Asp	Tyr	Tyr	Glu	Ser	Arg	Tyr	Tyr	Asp
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Asp	Pro	Arg	Glu	Tyr	Arg	Asp	Tyr	Arg	Asn	Asp	Pro	Tyr	Glu	Gln	Asp
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Lys	Glu	Lys	Glu	Gly	Lys	Val	Ile	Asp	His	Thr	Pro	Val	Glu	Lys	Leu
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Lys	Ala	Lys	Leu	Asp	Asn	Asp	Thr	Val	Lys	Ser	Ser	Ala	Leu	Asp	Gln

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 Ser Leu Arg Lys Arg Ser Val Arg Asp Leu Glu Pro Gly Glu Val Pro
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 Ser Asp Ser Asp Glu Asp Gly Glu His Lys Ser His Ser Pro Arg Ala
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 Ser Ala Leu Tyr Glu Ser Ser Arg Leu Ser Phe Leu Leu Arg Asp Arg
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 Glu Asp Lys Leu Arg Glu Arg Asp Glu Arg Leu Ser Ser Ser Leu Glu
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 Arg Asn Lys Phe Tyr Ser Phe Ala Leu Asp Lys Thr Ile Thr Pro Asp
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 Thr Lys Ala Leu Leu Glu Arg Ala Lys Ser Leu Ser Ser Ser Arg Glu
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 Glu Asn Trp Ser Phe Leu Asp Trp Asp Ser Arg Phe Ala Asn Phe Arg
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 Asn Asn Lys Asp Lys Glu Lys Val Asp Ser Ala Pro Arg Pro Ile Pro
 1075 1080 1085
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 1125 1130 1135
 Ser Lys Arg Leu Gln His Leu Glu Arg Lys Glu Glu Asp Ser Asp Phe
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3702

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 Gly Glu Pro Glu Asn Phe Pro Ala Pro Pro Pro Tyr Pro Gly Glu Ser
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 Gln Thr Asp Leu Gln Pro Pro Ala Gly Ala Gln Ala Leu Gln Pro Ser
 1845 1850 1855
 Glu Glu Gly Met Glu Thr Asp Glu Ala Val Ser Gly Ile Leu Glu Thr
 1860 1865 1870
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 1875 1880 1885
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 1890 1895 1900
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 Thr Leu Val Arg Lys Asp Lys Gly Arg Gln Lys Thr Thr Arg Ser Arg
 1925 1930 1935
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 Val Pro Glu Ser Asn Gln Ala Gln Gly Glu Ser Pro Ala Ala Asn Glu
 1955 1960 1965
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 2645 2650 2655
 Ala Gly Ile Pro Val Pro Gln Phe Ile Ser Ser Ile His Pro Glu Gln

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Pro Gln Pro Ala Pro Ala Gly Val Pro Ala Leu Ala Ser Gln His Pro					
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Pro Glu Glu Glu Val His Tyr His Leu Pro Val Ala Arg Ala Thr Ala					
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Pro Thr Thr Ser Gly Pro Ser Thr Pro Pro Gly Leu Val Leu Pro His					
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Ser Gln Arg Pro Val Asp Met Val Gln Leu Leu Lys Lys Tyr Pro Ile					

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Pro Asn Pro Gly Ser Asn Gln Pro Ala Tyr Val Leu Gln Ile Phe Pro		3215
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			20					25					30		
Glu	Glu	Met	Thr	Pro	Thr	Ser	Val	Ile	Pro	Lys	Leu	Pro	Gln	Cys	Leu
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Ile	Leu	Gln	Pro	Lys	Asn	Glu	Ala	Asp	Arg	Gln	Ala	Glu	Lys	Arg	Glu
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				165					170					175	
Glu	Leu	Leu	Ala	Arg	Lys	Ile	Leu	Arg	Phe	Asn	Glu	Tyr	Val	Glu	Val
			180					185					190		
Thr	Asp	Ala	Gln	Asp	Tyr	Asp	Arg	Arg	Ala	Asp	Lys	Pro	Trp	Thr	Lys

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Leu Thr Pro Ala Asp Lys Ala Ala Ile Arg Lys Glu Leu Asn Glu Phe		
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 <213> Homo sapiens

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 <212> PRT
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 35 40 45
 Ile Met Lys Met Ile Ser Ala Thr Glu Gly Pro Val Lys Ala Arg Glu
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 Val Gln Lys Phe Thr Glu Asp Leu Val Gly Ser Val Val His Val Leu
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 Ser His Arg Gln Glu Leu Arg Gly Trp Thr Gly Lys Glu Ala Pro Gly
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 <211> 901
 <212> PRT
 <213> Homo sapiens

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 Ala Arg Asp Pro Ala Ser Leu Thr Arg Gly Leu Cys Gln Ala Leu Val
 85 90 95
 Pro Pro Gly Val Ala Ala Leu Leu Ala Phe Pro Glu Ala Arg Pro Glu
 100 105 110
 Leu Leu Gln Leu His Phe Leu Ala Ala Thr Glu Thr Pro Val Leu
 115 120 125
 Ser Leu Leu Arg Arg Glu Ala Arg Ala Pro Leu Gly Ala Pro Asn Pro
 130 135 140
 Phe His Leu Gln Leu His Trp Ala Ser Pro Leu Glu Thr Leu Leu Asp
 145 150 155 160
 Val Leu Val Ala Val Leu Gln Ala His Ala Trp Glu Asp Val Gly Leu
 165 170 175
 Ala Leu Cys Arg Thr Gln Asp Pro Gly Gly Leu Val Ala Leu Trp Thr
 180 185 190
 Ser Arg Ala Gly Arg Pro Pro Gln Leu Val Leu Asp Leu Ser Arg Arg
 195 200 205
 Asp Thr Gly Asp Ala Gly Leu Arg Ala Arg Leu Ala Pro Met Ala Ala
 210 215 220
 Pro Val Gly Gly Glu Ala Pro Val Pro Ala Ala Val Leu Leu Gly Cys
 225 230 235 240
 Asp Ile Ala Arg Ala Arg Arg Val Leu Glu Ala Val Pro Pro Gly Pro
 245 250 255
 His Trp Leu Leu Gly Thr Pro Leu Pro Pro Lys Ala Leu Pro Thr Ala
 260 265 270
 Gly Leu Pro Pro Gly Leu Leu Ala Leu Gly Glu Val Ala Arg Pro Pro
 275 280 285
 Leu Glu Ala Ala Ile His Asp Ile Val Gln Leu Val Ala Arg Ala Leu

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Val Asn Cys Gly Asp Leu	Gln Pro Ala Gly Pro Glu Ser Pro Gly Arg	320
325	330	335
Phe Leu Ala Arg Phe Leu Ala Asn Thr Ser Phe Gln Gly Arg Thr Gly		
340	345	350
Pro Val Trp Val Thr Gly Ser Ser Gln Val His Met Ser Arg His Phe		
355	360	365
Lys Val Trp Ser Leu Arg Arg Asp Pro Arg Gly Ala Pro Ala Trp Ala		
370	375	380
Thr Val Gly Ser Trp Arg Tyr Gly Gln Leu Asp Leu Glu Pro Gly Gly		
385	390	395
Ala Ser Ala Trp Pro Pro Pro Gln Gly Ala Gln Val Arg Pro Lys		
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Leu Arg Val Val Thr Leu Leu Glu His Pro Phe Val Phe Ala Arg Asp		
420	425	430
Pro Asp Glu Asp Gly Gln Cys Pro Ala Gly Gln Leu Cys Leu Asp Pro		
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450	455	460
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465	470	475
Ile Asp Leu Leu Glu Arg Leu Ala Glu Asp Thr Pro Phe Asp Phe Glu		
485	490	495
Leu Tyr Leu Val Gly Asp Gly Lys Tyr Gly Ala Leu Arg Asp Gly Arg		
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Trp Thr Gly Leu Val Gly Asp Leu Leu Ala Gly Arg Ala His Met Ala		
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Val Thr Ser Phe Ser Ile Asn Ser Ala Arg Ser Gln Val Val Asp Phe		
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Thr Ser Pro Phe Phe Ser Thr Ser Leu Gly Ile Met Val Arg Ala Arg		
545	550	555
Asp Thr Ala Ser Pro Ile Gly Ala Phe Met Trp Pro Leu His Trp Ser		
565	570	575
Thr Trp Leu Gly Val Phe Ala Ala Leu His Leu Thr Ala Leu Phe Leu		
580	585	590
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595	600	605
Asn Arg Ser Thr Val Phe Ser Tyr Ser Ser Ala Leu Asn Leu Cys Tyr		
610	615	620
Ala Ile Leu Phe Arg Arg Thr Val Ser Ser Lys Thr Pro Lys Cys Pro		
625	630	635
Thr Gly Arg Leu Leu Met Asn Leu Trp Ala Ile Phe Cys Leu Leu Val		
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Leu Ser Ser Tyr Thr Ala Asn Leu Ala Val Met Val Gly Asp Lys		
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Thr Phe Glu Glu Leu Ser Gly Ile His Asp Pro Lys Leu His His Pro		
675	680	685
Ala Gln Gly Phe Arg Phe Gly Thr Val Trp Glu Ser Ser Ala Glu Ala		
690	695	700
Tyr Ile Lys Lys Ser Phe Pro Asp Met His Ala His Met Arg Arg His		
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<210> 4517
<211> 2275
<212> DNA
<213> Homo sapiens
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720					

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<211> 650

<212> PRT

<213> Homo sapiens

<400> 4518

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Pro Gly Ala Asp Gly Gly Ser Leu Glu Ala Val Arg Leu Gly Pro Ser
          50           55           60
Ser Gly Leu Leu Val Asp Trp Leu Glu Met Leu Asp Pro Glu Val Val
65           70           75           80
Ser Ser Cys Pro Asp Leu Gln Leu Arg Leu Leu Phe Ser Arg Arg Lys
          85           90           95
Gly Lys Gly Gln Ala Gln Val Pro Ser Phe Arg Pro Tyr Leu Leu Thr
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Leu Phe Thr His Gln Ser Ser Trp Pro Thr Leu His Gln Cys Ile Arg
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Val Leu Leu Gly Lys Ser Arg Glu Gln Arg Phe Asp Pro Ser Ala Ser
          130          135          140
Leu Asp Phe Leu Trp Ala Cys Ile His Val Pro Arg Ile Trp Gln Gly
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Arg Asp Gln Arg Thr Pro Gln Lys Arg Arg Glu Glu Leu Val Leu Arg
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Asp Pro Leu His Asp Leu Ser Phe Asp Asn Ser Asp Leu Val Met Leu
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Lys Ser Leu Leu Ala Gly Leu Ser Leu Pro Ser Arg Asp Asp Arg Thr
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Asp Arg Gly Leu Asp Glu Glu Gly Glu Glu Glu Ser Ser Ala Gly Ser
465          470          475          480
Leu Pro Leu Val Ser Val Ser Leu Phe Thr Pro Leu Thr Ala Ala Glu
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Met Ala Pro Tyr Met Lys Arg Leu Ser Arg Gly Gln Thr Val Glu Gly
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Glu Ser Gly Pro Ala Ser Pro Thr Pro Asp Leu Leu Glu Val Leu Ser
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Asp Ile Asp Glu Met Ser Arg Arg Arg Pro Glu Ile Leu Ser Phe Phe
          530          535          540
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545          550          555          560
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Ile Ala Ala Ala Phe Leu Pro Thr Phe Met Tyr Cys Leu Gly Ser Gln
          580          585          590
Asp Phe Glu Val Val Gln Thr Ala Leu Arg Asn Leu Pro Glu Tyr Ala
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Leu Leu Cys Gln Glu His Ala Ala Val Leu Leu His Arg Ala Phe Leu
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<210> 4519

<211> 2326

<212> DNA

<213> Homo sapiens

<400> 4519

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<210> 4520

<211> 617

<212> PRT

<213> Homo sapiens

<400> 4520

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Thr	Asn	Cys	Lys	Gln	Ala	Glu	Arg	Pro	Asn	Asn	Gln	Gln	Asn	Cys	Phe
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Lys	Val	Cys	Asp	Trp	His	Lys	Glu	Leu	Tyr	Asp	Trp	Arg	Leu	Gly	Pro
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Trp	Asn	Gln	Cys	Gln	Pro	Val	Ile	Ser	Lys	Ser	Leu	Glu	Lys	Pro	Leu
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Glu	Cys	Ile	Lys	Gly	Glu	Glu	Gly	Ile	Gln	Val	Arg	Glu	Ile	Ala	Cys
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Ile	Gln	Lys	Asp	Lys	Asp	Ile	Pro	Ala	Glu	Asp	Ile	Ile	Cys	Glu	Tyr
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Phe	Glu	Pro	Lys	Pro	Leu	Leu	Glu	Gln	Ala	Cys	Leu	Ile	Pro	Cys	Gln
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Gln	Asp	Cys	Ile	Val	Ser	Glu	Phe	Ser	Ala	Trp	Ser	Glu	Cys	Ser	Lys
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Cys	Gln	Ser	Ser	Pro	Cys	Glu	Ala	Glu	Glu	Leu	Arg	Tyr	Ser	Leu	His
			180					185					190		
Val	Gly	Pro	Trp	Ser	Thr	Cys	Ser	Met	Pro	His	Ser	Arg	Gln	Val	Arg
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Asn	Arg	Asn	Arg	Gln	Asn	Arg	Gln	Glu	Asn	Lys	Tyr	Trp	Asp	Ile	Gln
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Ile	Gly	Tyr	Gln	Thr	Arg	Glu	Val	Met	Cys	Ile	Asn	Lys	Thr	Gly	Lys
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Gln	Ser	Cys	Val	Ile	Thr	Lys	Glu	Cys	Gln	Val	Ser	Glu	Trp	Ser	Glu

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		325		330
Lys Glu Cys Pro Glu Phe Glu Glu Lys Glu Pro Cys Leu Ser Gln Gly				
		340		345
Asp Gly Val Val Pro Cys Ala Thr Tyr Gly Trp Arg Thr Thr Glu Trp				
		355		360
Thr Glu Cys Arg Val Asp Pro Leu Leu Ser Gln Gln Asp Lys Arg Arg				
		370		375
Gly Asn Gln Thr Ala Leu Cys Gly Gly Gly Ile Gln Thr Arg Glu Val				
385		390		395
Tyr Cys Val Gln Ala Asn Glu Asn Leu Leu Ser Gln Leu Ser Thr His				
		405		410
Lys Asn Lys Glu Ala Ser Lys Pro Met Asp Leu Lys Leu Cys Thr Gly				
		420		425
Pro Ile Pro Asn Thr Thr Gln Leu Cys His Ile Pro Cys Pro Thr Glu				
		435		440
Cys Glu Val Ser Pro Trp Ser Ala Trp Gly Pro Cys Thr Tyr Glu Asn				
		450		455
Cys Asn Asp Pro Gln Gly Lys Lys Gly Phe Lys Leu Arg Lys Arg Arg				
465		470		475
Ile Thr Asn Glu Pro Thr Gly Gly Ser Gly Leu Thr Gly Asn Cys Pro				
		485		490
His Leu Leu Glu Ala Ile Pro Cys Glu Glu Pro Ala Cys Tyr Asp Trp				
		500		505
Lys Ala Val Arg Leu Gly Asp Cys Glu Pro Asp Asn Gly Lys Glu Cys				
		515		520
Gly Pro Gly Thr Gln Val Gln Glu Val Val Cys Ile Asn Ser Asp Gly				
		530		535
Glu Glu Val Asp Arg Gln Leu Cys Arg Asp Ala Ile Phe Pro Ile Pro				
545		550		555
Val Ala Cys Asp Ala Pro Cys Pro Lys Asp Cys Val Leu Ser Thr Trp				
		565		570
Ser Thr Trp Ser Ser Cys Ser His Thr Cys Ser Gly Lys Thr Thr Glu				
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Gly Lys Gln Ile Arg Ala Arg Ser Ile Leu Ala Tyr Ala Gly Glu Glu				
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<210> 4521

<211> 1071

<212> DNA

<213> Homo sapiens

<400> 4521

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120

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180

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 840
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 960
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<210> 4522

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4522

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			20					25					30		
His	Thr	Glu	Thr	Ala	Ser	Ser	Phe	Gln	Pro	Ser	Pro	Phe	Ser	Ala	Asp
			35				40					45			
Phe	Glu	Leu	Gln	Ile	Ser	Leu	Leu	Tyr	Leu	Glu	Ser	Pro	Ile	Ser	Leu
	50					55					60				
Gln	Glu	Phe	Ala	Leu	Ser	Phe	Ile	Ile	Ile	Leu	Val	Tyr	Val	Leu	Asp
65					70					75				80	
Trp	Ala	Ala	Ile	Thr	Arg	Cys	His	Arg	Leu	Ser	Gly	Leu	Asn	Asn	Lys
				85				90					95		
His	Ser	Tyr	Pro	Thr	Val	Thr	Glu	Ala	Glu	Lys	Pro	Gly	Val	Lys	Val
			100					105					110		
Pro	Ala	Trp	Ser	Asp	Ser	Val	Leu	Glu	Ala	Gly	Lys	Ser	Lys	Met	Glu
		115					120					125			
Ala	Leu	Val	Gly	Leu	Val	Ser	Gly	Arg	Ala	Ser	Leu	Cys	Phe	Gln	Asp

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Gly	Ala	Leu	Ser	Leu	His	Leu	Pro	Glu	Gly	Arg	Asn	Ala	Val	Ser	Leu				
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Gln	His	Arg	Arg	Asn	Thr	Ser	Glu	Lys	Lys	Ser	Ser	Arg	Lys	Val	Glu				
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Asn	Lys	Glu	Met	Glu	Tyr	Ile	Tyr	Glu	Asn	Tyr	Tyr	Ile							
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<210> 4523
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 <212> DNA
 <213> Homo sapiens

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<210> 4524
 <211> 262
 <212> PRT

<213> Homo sapiens

<400> 4524

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 35 40 45
 Glu Ala Leu Arg Lys Met Gly Leu Arg Pro Gly Val Arg His Pro Phe
 50 55 60
 Leu Gly Asp Leu Arg Lys Leu Ile Thr Asp Asp Phe Val Lys Gln Lys
 65 70 75 80
 Tyr Leu Glu Tyr Lys Lys Ile Pro Asn Ser Asn Pro Pro Glu Tyr Glu
 85 90 95
 Phe Leu Trp Gly Leu Arg Ala Arg His Glu Thr Ser Lys Met Arg Val
 100 105 110
 Leu Arg Phe Ile Ala Gln Asn Gln Asn Arg Asp Pro Arg Glu Trp Lys
 115 120 125
 Ala His Phe Leu Glu Ala Val Asp Asp Ala Phe Lys Thr Met Asp Val
 130 135 140
 Asp Met Ala Glu Glu His Ala Arg Ala Gln Met Arg Ala Gln Met Asn
 145 150 155 160
 Ile Gly Asp Glu Ala Leu Ile Gly Arg Trp Ser Trp Asp Asp Ile Gln
 165 170 175
 Val Glu Leu Leu Thr Trp Asp Glu Asp Gly Asp Phe Gly Asp Ala Trp
 180 185 190
 Ala Arg Ile Pro Phe Ala Phe Trp Ala Arg Tyr His Gln Tyr Ile Leu
 195 200 205
 Asn Ser Asn Arg Ala Asn Arg Arg Ala Thr Trp Arg Ala Gly Val Ser
 210 215 220
 Ser Gly Thr Asn Gly Gly Ala Ser Thr Ser Val Leu Asp Gly Pro Ser
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<210> 4525

<211> 1731

<212> DNA

<213> Homo sapiens

<400> 4525

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<210> 4526

<211> 344

<212> PRT

<213> Homo sapiens

<400> 4526

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          20           25           30
Glu Ala Val Asp Thr Ile Gln Pro Glu Thr Gly Ser Gln Ala Ser Ser
          35           40           45
Glu Gln Pro Gly Gln Leu Ile Ser Phe Ser Glu Ala Leu Gln His Phe
          50           55           60
Gln Thr Val Asp Leu Ser Pro Phe Lys Lys Arg Ile Gln Pro Thr Ile
65           70           75           80
Arg Arg Thr Gly Leu Ala Ala Leu Arg His Tyr Leu Phe Gly Pro Pro
          85           90           95
Lys Leu His Gln Arg Leu Arg Glu Glu Arg Asp Leu Val Leu Thr Ile
          100          105          110
Ala Gln Cys Gly Leu Asp Ser Gln Asp Pro Val His Gly Arg Val Leu
          115          120          125
Gln Thr Ile Tyr Lys Lys Leu Thr Gly Ser Lys Phe Asp Cys Ala Leu
          130          135          140
His Gly Asn His Trp Glu Asp Leu Gly Phe Gln Gly Ala Asn Pro Ala
145          150          155          160
Thr Asp Leu Arg Gly Ala Gly Phe Leu Ala Leu Leu His Leu Leu Tyr
          165          170          175
Leu Val Met Asp Ser Lys Thr Leu Pro Met Ala Gln Glu Ile Phe Arg
          180          185          190
Leu Ser Arg His His Ile Gln Gln Phe Pro Phe Cys Leu Met Ser Val
          195          200          205
Asn Ile Thr His Ile Ala Ile Gln Ala Leu Arg Glu Glu Cys Leu Ser
          210          215          220
Arg Glu Cys Asn Arg Gln Gln Lys Val Ile Pro Val Val Asn Ser Phe
225          230          235          240
Tyr Ala Ala Thr Phe Leu His Leu Ala His Val Trp Arg Thr Gln Arg
          245          250          255
Lys Thr Ile Ser Asp Ser Gly Phe Val Leu Lys Gly Val Leu Phe Leu
          260          265          270
Leu Gly Arg Pro Arg Leu Asn Ala Gln Cys Pro Arg Ser Arg Glu Pro
          275          280          285
Lys Val Val Ala Arg Leu Val Leu Ala Ala Val Leu Pro His Pro His
          290          295          300
Phe Leu Lys Phe Gln Leu Thr Lys Ile Ser Ile Thr His Pro Leu Glu
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Ser Ala Ser Ser Pro Phe Ser Ala Leu Thr Val Ala Leu Phe Trp Ser
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<210> 4527

<211> 885

<212> DNA

<213> Homo sapiens

<400> 4527

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<210> 4528

<211> 206

<212> PRT

<213> Homo sapiens

<400> 4528

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			20					25					30		
Ser	Gln	Lys	Gly	Ser	Leu	Gly	His	Leu	Pro	Thr	Gln	Pro	Trp	Leu	Trp
			35				40						45		
Ala	Ala	Met	Ser	Pro	Arg	Gly	Gln	Glu	Arg	Gly	Thr	Ser	His	Ser	Gln
			50				55						60		
Ala	Arg	Glu	Pro	Gln	Arg	Pro	Gly	Arg	Trp	Leu	Leu	Gly	Ser	Leu	Gln
					70					75					80
Ser	Ser	Pro	Gly	Thr	Leu	Gly	Gln	Ala	Gly	Thr	Ala	Ser	Arg	Arg	Arg
				85					90					95	
Gly	Cys	Met	Val	Gln	Arg	Trp	Val	Gln	Val	Ala	Thr	Gly	Arg	Arg	Ala
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Val	Gln	Val	Pro	Lys	Gly	Ala	Leu	Gly	Leu	Ala	Leu	Gly	Glu	Thr	Ser
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Pro	Gly	Ala	Ser	Arg	Gly	Met	Ser	Gly	Gly	Ala	Gly	Gly	Cys	Trp	Ala
			130			135							140		
Leu	Gly	Trp	Ala	Pro	Ser	Pro	Val	Leu	Pro	Ser	Trp	Leu	Leu	Glu	Gly

145		150		155		160									
Pro	Pro	Pro	Trp	Leu	Ser	Ile	Ile	Ser	Asp	Ser	Gly	Thr	Gln	Thr	Pro
		165		170		175									
Ser	Pro	Arg	Arg	Cys	Pro	Ala	Arg	Pro	Ser	Pro	Trp	Gly	Pro	Gln	Cys
		180		185		190									
Trp	Arg	Gly	Gly	Arg	Ile	Ala	Ser	Ala	Glu	Ala	Ser	Ser	Thr		
		195		200		205									

<210> 4529
 <211> 546
 <212> DNA
 <213> Homo sapiens

<400> 4529
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 120
 aagatggagg agaaaccctc agggcccacac ccggacatgc tggccactgc agagcccagc
 180
 tccagtgaga ccgacaagga ggtgttgtcc ccggctgtgc cagctgcagc cccctcctcc
 240
 tccatgtcgg aggagccagg ccctgagcag gcagccacac cgccagtggg gaacgtggag
 300
 gggctggagg gatgcagcag ggctcctccc cagccccaga cagctgccag tctggccccg
 360
 gaccagccc tggcctgacc agcatagtct ccgggaccag cgaggacctg cggcctccca
 420
 gacgagccc acctccaggg aagcaaatec cttgtctccag ccctggctgc tgcctcagtt
 480
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 540
 agtctc
 546

<210> 4530
 <211> 84
 <212> PRT
 <213> Homo sapiens

<400> 4530															
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1			5						10					15	
Glu	Pro	Ser	Ser	Ser	Glu	Thr	Asp	Lys	Glu	Val	Leu	Ser	Pro	Ala	Val
			20					25					30		
Pro	Ala	Ala	Ala	Pro	Ser	Ser	Ser	Met	Ser	Glu	Glu	Pro	Gly	Pro	Glu
		35					40					45			
Gln	Ala	Ala	Thr	Pro	Pro	Val	Gly	Asn	Val	Glu	Gly	Leu	Glu	Gly	Cys
	50					55				60					
Ser	Arg	Ala	Pro	Pro	Gln	Pro	Gln	Thr	Ala	Ala	Ser	Leu	Ala	Pro	Asp
65					70					75					80
Pro	Ala	Leu	Ala												

<210> 4531

<211> 1414

<212> DNA

<213> Homo sapiens

<400> 4531

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120
gtgagcctgg ccaacttaaa gccgaatccc ggctccaaga aaccggagag aagaccaaga
180
ggtcggagaa gaggtagaaa atgtggcaga ggccataaag gagaaaggca aagaggaacc
240
cggccccgct tgggctttga gggaggccag actccatttt acatccgaat cccaaaatac
300
gggtttaacg aaggacatag ttccagacgc cagtataagc ctttgagtct caatagactg
360
cagtatctta ttgatttggg tcgtgttgat cctagtcaac ctattgactt aaccagctt
420
gtcaatggga gaggtgtgac catccagcca cttaaaaggg attatggtgt ccagctgggt
480
gaggaggggtg ctgacacctt tacggcaaaa gttaatatg aagtacagt ggcttcagaa
540
ctagctattg ctgccattga aaaaaatggg ggtgttggtta ctacagcctt ctatgatcca
600
agaagtctgg acattgtatg caaacctggt ccattctttc ttcgtggaca acccattcca
660
aaaagaatgc ttccaccaga agaactggta ccatattaca ctgatgcaaa gaaccgtggg
720
tacctggcgg atcctgccaa atttcttgaa gcacgacttg aactcgccag gaagtatggt
780
tatatcttac ctgatatcac taaagatgaa ctcttcaaaa tgctctgtac taggaaggat
840
ccaaggcaga ttttctttgg tcttgctcca ggatgggtgg tgaatatggc cgataagaaa
900
atcctaaaac ctacagatga aaatctcctt aagtattata cctcatgaat tcccgccaa
960
ggaagcagag ttgttaaaga gtactggaat aggggctgaa ggatctatat tcccttattg
1020
cattttcctt atgtataatt ttccagatgg tgatgttact tttcagtgt ctcatatgtc
1080
tcattttcat ctaaaattaa atggcaggaa acaaggactg catagagaaa ctgagtctgt
1140
gtgggttctg tctcaaagat acaaactccc tgatagtcta tggaaggaaa atgacaacta
1200
ttttagaata tttctagttt gttttttcag tgatcttttc atccaggcct tgttactggt
1260
acagatcaga atgaaatgca caagtggaat gggattgacc tgtaggcctg ctctgccgag
1320
atgagagcag atggaatgag ttggtgaccc ctcttaatct gtagcctcag ggaaacacgg
1380
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1414

<210> 4532
 <211> 296
 <212> PRT
 <213> Homo sapiens

<400> 4532

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Met Ala Gly Pro Leu Gln Gly Gly Gly Ala Arg Ala Leu Asp Leu Leu
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Arg Gly Leu Pro Arg Val Ser Leu Ala Asn Leu Lys Pro Asn Pro Gly
      20           25           30
Ser Lys Lys Pro Glu Arg Arg Pro Arg Gly Arg Arg Arg Gly Arg Lys
      35           40           45
Cys Gly Arg Gly His Lys Gly Glu Arg Gln Arg Gly Thr Arg Pro Arg
      50           55           60
Leu Gly Phe Glu Gly Gly Gln Thr Pro Phe Tyr Ile Arg Ile Pro Lys
65           70           75           80
Tyr Gly Phe Asn Glu Gly His Ser Phe Arg Arg Gln Tyr Lys Pro Leu
      85           90           95
Ser Leu Asn Arg Leu Gln Tyr Leu Ile Asp Leu Gly Arg Val Asp Pro
      100          105          110
Ser Gln Pro Ile Asp Leu Thr Gln Leu Val Asn Gly Arg Gly Val Thr
      115          120          125
Ile Gln Pro Leu Lys Arg Asp Tyr Gly Val Gln Leu Val Glu Glu Gly
      130          135          140
Ala Asp Thr Phe Thr Ala Lys Val Asn Ile Glu Val Gln Leu Ala Ser
145          150          155          160
Glu Leu Ala Ile Ala Ala Ile Glu Lys Asn Gly Gly Val Val Thr Thr
      165          170          175
Ala Phe Tyr Asp Pro Arg Ser Leu Asp Ile Val Cys Lys Pro Val Pro
      180          185          190
Phe Phe Leu Arg Gly Gln Pro Ile Pro Lys Arg Met Leu Pro Pro Glu
      195          200          205
Glu Leu Val Pro Tyr Tyr Thr Asp Ala Lys Asn Arg Gly Tyr Leu Ala
      210          215          220
Asp Pro Ala Lys Phe Pro Glu Ala Arg Leu Glu Leu Ala Arg Lys Tyr
225          230          235          240
Gly Tyr Ile Leu Pro Asp Ile Thr Lys Asp Glu Leu Phe Lys Met Leu
      245          250          255
Cys Thr Arg Lys Asp Pro Arg Gln Ile Phe Phe Gly Leu Ala Pro Gly
      260          265          270
Trp Val Val Asn Met Ala Asp Lys Lys Ile Leu Lys Pro Thr Asp Glu
      275          280          285
Asn Leu Leu Lys Tyr Tyr Thr Ser
      290          295

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<210> 4533
 <211> 968
 <212> DNA
 <213> Homo sapiens

<400> 4533

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acgcgtgccc agcacatgtg tgcacacgca gatgcaggag agaacacaca ccaccgtctc
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 120
 gcgcggcggc cccgcgcagc catggactgg ctcatgggga agtccaaagc caagcccaat
 180
 ggcaagaagc ccgctgcgga ggagaggaag gcctacctgg agcctgagca caccaaggcc
 240
 aggatcacccg acttccagtt caaggagctg gtggtgctgc cccgggagat cgacctcaac
 300
 gagtggctgg ccagcaacac aacaacattt ttccaccaca tcaacctgca gtatagcaca
 360
 atctcggagt tctgcacagg agagacgtgt cagacgatgg ccgtgtgcaa cacacagtac
 420
 tactggtatg acgagcgggg gaagaaggtc aagtgcacgg cccacagta cgttgacttc
 480
 gtcattgagct ccgtgcagaa gctggtgacg gatgaggacg tgttccccac aaaatacggc
 540
 agagaattcc ccagctcctt tgagtccttg gtgaggaaga tctgcagaca cctgttccac
 600
 gtgctggcac acatctactg ggcccacttc aaggagacgc tggccctgga gctgcacgga
 660
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 720
 cccaaagaga ccgccatcat ggacgacctc accgaggtgc tatgcagcgg ggccggcggg
 780
 gtccacagtg ggggcagtgg ggatggggcc ggcagcgggg gcccgggagc acagaaccac
 840
 gtgaaggaga gatgagcccc ccggggccgga caggggcaca cgtgtgcaaa gagacggtgg
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 960
 acacgcgt
 968

<210> 4534

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4534

Thr	Arg	Ala	Gln	His	Met	Cys	Ala	His	Ala	Asp	Ala	Gly	Glu	Asn	Thr
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His	His	Arg	Leu	Phe	Ala	His	Val	Cys	Pro	Cys	Pro	Asp	Ala	Gly	Ala
			20					25					30		
Glu	Ala	Asp	Arg	Val	Gly	Gln	Arg	Ala	Arg	Arg	Pro	Arg	Ala	Ala	Met
		35				40					45				
Asp	Trp	Leu	Met	Gly	Lys	Ser	Lys	Ala	Lys	Pro	Asn	Gly	Lys	Lys	Pro
	50				55					60					
Ala	Ala	Glu	Glu	Arg	Lys	Ala	Tyr	Leu	Glu	Pro	Glu	His	Thr	Lys	Ala
65				70					75					80	
Arg	Ile	Thr	Asp	Phe	Gln	Phe	Lys	Glu	Leu	Val	Val	Leu	Pro	Arg	Glu
			85					90						95	
Ile	Asp	Leu	Asn	Glu	Trp	Leu	Ala	Ser	Asn	Thr	Thr	Thr	Phe	Phe	His
		100					105						110		
His	Ile	Asn	Leu	Gln	Tyr	Ser	Thr	Ile	Ser	Glu	Phe	Cys	Thr	Gly	Glu

115	120	125
Thr Cys Gln Thr Met Ala Val Cys Asn Thr Gln Tyr Tyr Trp Tyr Asp		
130	135	140
Glu Arg Gly Lys Lys Val Lys Cys Thr Ala Pro Gln Tyr Val Asp Phe		
145	150	155
Val Met Ser Ser Val Gln Lys Leu Val Thr Asp Glu Asp Val Phe Pro		
165	170	175
Thr Lys Tyr Gly Arg Glu Phe Pro Ser Ser Phe Glu Ser Leu Val Arg		
180	185	190
Lys Ile Cys Arg His Leu Phe His Val Leu Ala His Ile Tyr Trp Ala		
195	200	205
His Phe Lys Glu Thr Leu Ala Leu Glu Leu His Gly His Leu Asn Thr		
210	215	220
Leu Tyr Val His Phe Ile Leu Phe Ala Arg Glu Phe Asn Leu Leu Asp		
225	230	235
Pro Lys Glu Thr Ala Ile Met Asp Asp Leu Thr Glu Val Leu Cys Ser		
245	250	255
Gly Ala Gly Gly Val His Ser Gly Gly Ser Gly Asp Gly Ala Gly Ser		
260	265	270
Gly Gly Pro Gly Ala Gln Asn His Val Lys Glu Arg		
275	280	

<210> 4535
 <211> 473
 <212> DNA
 <213> Homo sapiens

<400> 4535
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 cagtggcatg atcacagctc actgcaacct ctgcctccca ggttcaagca gttctctnng
 120
 ctcagcctcc cgagtagctg ggattacagg cgtccgccac cacgcccggc taatttttgt
 180
 attttttagta gaaacggggg ttcaccatct cggccaggct ggtcttgaac tctgaccto
 240
 atgatccatc cgccttggcc tcccaaagtg ctgggattac aggcattgagc taccgcgccc
 300
 ggccttggct gcagattaac gggaataacct cccttgggct tcttaggtga cactgtgata
 360
 ttcggtatga cctcccttgc tctattcctt ggaagaagta caggcactgg tcaagagtgc
 420
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 473

<210> 4536
 <211> 75
 <212> PRT
 <213> Homo sapiens

<400> 4536
 Arg Leu Phe Phe Phe Phe Phe Glu Met Glu Ser Arg Ser Val Thr
 1 5 10 15
 Gln Ala Gly Val Gln Trp His Asp His Ser Ser Leu Gln Pro Leu Pro

	20		25		30										
Pro	Arg	Phe	Lys	Gln	Phe	Ser	Xaa	Leu	Ser	Leu	Pro	Ser	Ser	Trp	Asp
	35		40		45										
Tyr	Arg	Arg	Pro	Pro	Pro	Arg	Pro	Ala	Asn	Phe	Cys	Ile	Phe	Ser	Arg
	50		55		60										
Asn	Gly	Val	Ser	Pro	Ser	Arg	Pro	Gly	Trp	Ser					
65			70				75								

<210> 4537
 <211> 2811
 <212> DNA
 <213> Homo sapiens

<400> 4537
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 120
 ataaaacgtt ctgaactacc tctgcgaggt gacattgtct tctttcttca gaaggttcat
 180
 attccagaga gtatcttgat ttttcgggat gagattgacc tccatgcatt ataccaggct
 240
 ggccaactca ccctcatcct tgtcgacctat catatcttat ccaaaagtga cacagcccta
 300
 gaggagngca gtagcagagg tgctagacca tcgacccatc gagccgaaac actgcctcc
 360
 ctgnnccatg tttcagttga gctggtgggg tcctgtgcta ccctggtgac cgagagaatc
 420
 ctgcaggggg caccagagat cttggacagg caaactgcag cccttctgca tggaaccatc
 480
 atcctggact gtgtcaacat ggaccttaaa attggaaagg caaccccaaa ggacagcaaa
 540
 tatgtggaga aactagaggc ctttttccca gacctacca agagaaatga tatatttgat
 600
 tccctacaaa aggcaaagtt tgatgtatca ggactgacca ctgagcagat gctgagaaaa
 660
 gaccagaaga ctatctatag acaaggcgct aagggtggcca ttagtgcaat atatatggat
 720
 ttggaggcct ttctgcagag gtctaacctc cttgcagatc tccatgcttt ctgccaggct
 780
 cacagctatg atgtcctggg tgccatgact atctttttca aactcacia tgagccagt
 840
 cggcagttgg ctattttctg tccccatgtg gcaactccaa caacgatctg tgaagtctg
 900
 gaacgctccc actctccacc cctgaagctg acccctgcct caagtacca ccctaacctc
 960
 catgcctatc ttcaaggcaa caccagggtc tctcgaaaga aacttctgcc cctgctccag
 1020
 gaagccctgt cagcatatct tgactccatg aagatccctt caggacagcc tgagacagca
 1080
 gatgtgtcca gggagcaagt ggacaaggaa ttggacaggg caagtaactc cctgatttct
 1140
 ggactgagtc aagatgagga ggaccctccg ctgcccccca cgcccatgaa cagcttggtg
 1200

gatgagtgcc ctctagatca ggggctgcct aaactctctg ctgaggccgt cttcgagaag
1260
tgcagtcaga tctcactgtc acagtctacc acagcctccc tgtccaagaa gtgactgttg
1320
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1380
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1440
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1560
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ttagaccca aaagtgtcct cggcatggat cttgaacaga accagtatct gtcattggaac
1680
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1740
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1800
tcagcctaca gcagattatc agctcgggtga cttttctttc tgccaccatt taggtgatgg
1860
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1920
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1980
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2160
ccttgctcac attaaaagga agcatggagt tctaattgctc ccataaacta tgtatttttg
2220
caagacactt cactactcca ggtctcactt tcccactctg taaaacaggg tttggactag
2280
gtgttccctg gtattctgtg atctgcctct tgctgccatt ctttctctcc tctgttctc
2340
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2400
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2460
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2520
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2580
caacagtttc actgaacagt ggggtatgtg atggtttttg catgacatct tcagtatgag
2640
ggggacagtt tgacttcact ttgaggggtg gatgtctgta gctatgtgga aggtaaaaat
2700
agtgggtgta tcatgaacca aaggaattta tgttttgtaa cttgggtact ttattttgca
2760
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2811

<210> 4538

<211> 437

<212> PRT

<213> Homo sapiens

<400> 4538

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Xaa Ala Trp His Glu Gly Asn Glu Ala Cys Asp Leu Asp Ser Thr Val
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Ser Ala Leu Ala Leu Ala Phe Tyr Leu Ala Lys Thr Thr Glu Ala Glu
          20           25           30
Glu Val Phe Val Pro Val Leu Asn Ile Lys Arg Ser Glu Leu Pro Leu
          35           40           45
Arg Gly Asp Ile Val Phe Phe Leu Gln Lys Val His Ile Pro Glu Ser
          50           55           60
Ile Leu Ile Phe Arg Asp Glu Ile Asp Leu His Ala Leu Tyr Gln Ala
65           70           75           80
Gly Gln Leu Thr Leu Ile Leu Val Asp His His Ile Leu Ser Lys Ser
          85           90           95
Asp Thr Ala Leu Glu Glu Xaa Ser Ser Arg Gly Ala Arg Pro Ser Thr
          100          105          110
His Arg Ala Glu Thr Leu Pro Ser Leu Xaa His Val Ser Val Glu Leu
          115          120          125
Val Gly Ser Cys Ala Thr Leu Val Thr Glu Arg Ile Leu Gln Gly Ala
          130          135          140
Pro Glu Ile Leu Asp Arg Gln Thr Ala Ala Leu Leu His Gly Thr Ile
145          150          155          160
Ile Leu Asp Cys Val Asn Met Asp Leu Lys Ile Gly Lys Ala Thr Pro
          165          170          175
Lys Asp Ser Lys Tyr Val Glu Lys Leu Glu Ala Leu Phe Pro Asp Leu
          180          185          190
Pro Lys Arg Asn Asp Ile Phe Asp Ser Leu Gln Lys Ala Lys Phe Asp
          195          200          205
Val Ser Gly Leu Thr Thr Glu Gln Met Leu Arg Lys Asp Gln Lys Thr
          210          215          220
Ile Tyr Arg Gln Gly Val Lys Val Ala Ile Ser Ala Ile Tyr Met Asp
225          230          235          240
Leu Glu Ala Phe Leu Gln Arg Ser Asn Leu Leu Ala Asp Leu His Ala
          245          250          255
Phe Cys Gln Ala His Ser Tyr Asp Val Leu Val Ala Met Thr Ile Phe
          260          265          270
Phe Asn Thr His Asn Glu Pro Val Arg Gln Leu Ala Ile Phe Cys Pro
          275          280          285
His Val Ala Leu Gln Thr Thr Ile Cys Glu Val Leu Glu Arg Ser His
          290          295          300
Ser Pro Pro Leu Lys Leu Thr Pro Ala Ser Ser Thr His Pro Asn Leu
305          310          315          320
His Ala Tyr Leu Gln Gly Asn Thr Gln Val Ser Arg Lys Lys Leu Leu
          325          330          335
Pro Leu Leu Gln Glu Ala Leu Ser Ala Tyr Phe Asp Ser Met Lys Ile
          340          345          350
Pro Ser Gly Gln Pro Glu Thr Ala Asp Val Ser Arg Glu Gln Val Asp
          355          360          365
Lys Glu Leu Asp Arg Ala Ser Asn Ser Leu Ile Ser Gly Leu Ser Gln

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```

      370              375              380
Asp Glu Glu Asp Pro Pro Leu Pro Pro Thr Pro Met Asn Ser Leu Val
385              390              395              400
Asp Glu Cys Pro Leu Asp Gln Gly Leu Pro Lys Leu Ser Ala Glu Ala
              405              410              415
Val Phe Glu Lys Cys Ser Gln Ile Ser Leu Ser Gln Ser Thr Thr Ala
              420              425              430
Ser Leu Ser Lys Lys
              435

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<210> 4539
 <211> 331
 <212> DNA
 <213> Homo sapiens

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<400> 4539
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120
tcacctggaa actccagcaa gagcagagggc aggtggagga gctgaggatg cagcttcaga
180
agcagaaaag gaataactgt tcagagaaga agccgctgcc tttcctggct gctccatca
240
agcaagaaga ggctgtctcc agctgtcctt ttgcatccca agtacctgtg aaaagacaaa
300
gcagcagctc aaagtgtcac ccaccggctt g
331

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<210> 4540
 <211> 99
 <212> PRT
 <213> Homo sapiens

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<400> 4540
Met Gly Ala Leu Phe Leu Leu Ser Trp Met Gly Trp Thr Pro Arg Lys
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Thr Arg Ser Leu Gly Glu Asn Gln Arg Val Ile Asn Glu Leu Thr Trp
      20      25      30
Lys Leu Gln Gln Glu Gln Arg Gln Val Glu Glu Leu Arg Met Gln Leu
      35      40      45
Gln Lys Gln Lys Arg Asn Asn Cys Ser Glu Lys Lys Pro Leu Pro Phe
      50      55      60
Leu Ala Ala Ser Ile Lys Gln Glu Glu Ala Val Ser Ser Cys Pro Phe
65      70      75      80
Ala Ser Gln Val Pro Val Lys Arg Gln Ser Ser Ser Ser Lys Cys His
      85      90      95
Pro Pro Ala

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<210> 4541
 <211> 452
 <212> DNA
 <213> Homo sapiens

<400> 4541
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 cacaggcaga tccagggatg taactgcttc agcaagaact gttgcgaatc ccttcgctgt
 120
 tccagtctga gaaccataaa aaatcttcac tccagacaca aagatgtctt tctcttgaag
 180
 ggagacataa ccatttgtca tcaaatectg agctgctttt ggaacagatt tttcctgtaa
 240
 gttcttgccc tgcgtcttga tgacaatctg gacacaaatc caaaggctaa tgctaacagc
 300
 aaagcccaaa taaatgtaaa acctgtttat ccacaatgat attaaagggtg agaagaggtc
 360
 ccatgtatcc gcagagggat ccatectcct cagagccgac aggagactag gatctcggac
 420
 ctggagagcc cgatgattcg cactgggtact gc
 452

<210> 4542

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4542

Met	Asp	Pro	Ser	Ala	Asp	Thr	Trp	Asp	Leu	Phe	Ser	Pro	Leu	Ile	Ser
1				5				10					15		
Leu	Trp	Ile	Asn	Arg	Phe	Tyr	Ile	Tyr	Leu	Gly	Phe	Ala	Val	Ser	Ile
			20					25					30		
Ser	Leu	Trp	Ile	Cys	Val	Gln	Ile	Val	Ile	Lys	Thr	Gln	Gly	Lys	Asn
		35					40					45			
Leu	Gln	Glu	Lys	Ser	Val	Pro	Lys	Ala	Ala	Gln	Asp	Leu	Met	Thr	Asn
	50					55				60					
Gly	Tyr	Val	Ser	Leu	Gln	Glu	Lys	Asp	Ile	Phe	Val	Ser	Gly	Val	Lys
65					70					75					80
Ile	Phe	Tyr	Gly	Ser	Gln	Thr	Gly	Thr	Ala	Lys	Gly	Phe	Ala	Thr	Val
				85					90					95	
Leu	Ala	Glu	Ala	Val	Thr	Ser	Leu	Asp	Leu	Pro	Val	Ala	Ile	Ile	Asn
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<210> 4543

<211> 815

<212> DNA

<213> Homo sapiens

<400> 4543

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 180

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<210> 4544
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 4544
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 His Lys Leu Gln Gly Ala Ala Ala Val Ser Leu Ala Arg His Trp Pro
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 Ile Thr Ser Asn Arg Leu Gly Arg Ala Pro Val Glu Ser Pro Val Pro
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 Ser His Phe Arg Arg Val Ala Leu Leu Pro Arg Ser Arg Ser Gln Trp
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 Pro Asp Lys Gln Ser His Ser Gly Val Val Arg Pro Gly Arg Val Ser
 85 90 95
 Pro Val Gly Gly Arg Gly Ala Leu Ala Arg Arg Val Ser Gly Glu Ala
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<210> 4546

<211> 380

<212> PRT

<213> Homo sapiens

<400> 4546

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Ser	Gln	Asn	Val	Ile	Val	Gly	Thr	Val	Lys	Met	Ser	Trp	Ser	His	Ala
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Ala	Ala	Val	Ser	Thr	Ile	Val	Asn	Arg	Gly	Ile	Thr	Pro	Lys	Ala	Phe
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Val	Phe	Arg	Asn	Tyr	Gly	His	Phe	Pro	Gly	Ile	Asn	Ser	His	Tyr	Leu
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Gly	Gly	Cys	Gln	Tyr	Lys	Met	Trp	Gln	Ala	Ile	Arg	Ala	Ser	Ser	Ala
		195					200					205			
Ala	Pro	Gly	Tyr	Phe	Ala	Glu	Tyr	Ala	Leu	Gly	Asn	Asp	Leu	His	Gln
	210					215					220				
Asp	Gly	Gly	Leu	Leu	Leu	Asn	Asn	Pro	Ser	Ala	Leu	Ala	Met	His	Glu
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Cys	Lys	Cys	Leu	Trp	Pro	Asp	Val	Pro	Leu	Glu	Cys	Ile	Val	Ser	Leu
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<211> 515

<212> PRT

<213> Homo sapiens

<400> 4548

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Val	Ser	Thr	Val	Glu	Glu	Gln	Glu	Asn	Glu	Thr	Pro	Pro	Ala	Thr	Ser

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Lys Glu Lys Glu Lys Lys Val Lys Lys Thr Ile Pro Ser Trp Ala Thr		
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Ser Ser Pro Arg Pro Lys Met Asp Ala Ile Leu Thr Glu Ala Ile Lys		
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Ile Ile His Lys Tyr Pro Ser Leu Glu Leu Glu Arg Arg Gly Tyr Leu		
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Val Leu His Asn Val Lys Gly Lys Gly Ala Ser Gly Ser Phe Val Val		
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Val Gln Lys Ser Arg Lys Thr Pro Gln Lys Ser Arg Asn Arg Lys Asn		
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Arg Ser Ser Ala Val Asp Pro Glu Pro Gln Val Lys Leu Glu Asp Val		
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Leu Pro Leu Ala Phe Thr Arg Leu Cys Glu Pro Lys Glu Ala Ser Tyr		
225	230	235
Ser Leu Ile Arg Lys Tyr Val Ser Gln Tyr Tyr Pro Lys Leu Arg Val		
245	250	255
Asp Ile Arg Pro Gln Leu Leu Lys Asn Ala Leu Gln Arg Ala Val Glu		
260	265	270
Arg Gly Gln Leu Glu Gln Ile Thr Gly Lys Gly Ala Ser Gly Thr Phe		
275	280	285
Gln Leu Lys Lys Ser Gly Glu Lys Pro Leu Leu Gly Gly Ser Leu Met		
290	295	300
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Cys Ser Thr Thr Ala Leu Lys Lys Tyr Val Leu Glu Asn His Pro Gly		
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Thr Asn Ser Asn Tyr Gln Met His Leu Leu Lys Lys Thr Leu Gln Lys		
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Asp Glu Ser Ser Glu Glu Asp Ser Glu Asp Glu Glu Pro Pro Pro Lys		
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Gln Arg Gly Lys Ala Arg Pro Leu Pro Lys Lys Ala Pro Pro Lys Ala		
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Lys Thr Pro Ala Lys Lys Thr Arg Pro Ser Ser Thr Val Ile Lys Lys		

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<210> 4549

<211> 2927

<212> DNA

<213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

<400> 4550
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 Thr Cys Tyr Gly Leu Val Ile Tyr Ala Asp Gly Tyr Met Phe Val Gly
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 Leu Leu Ser Val Thr Ile Pro Met Ser Met Phe Ile Leu Ser Glu Phe
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 Ala Leu Pro Gln Cys Gly Pro Ala Ala Pro Arg Ala Asp Gln Arg Gly
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Met Glu Val Ile Leu Ile Ile Lys Tyr Trp Thr Ala Leu Cys Val Ala				
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<211> 361

<212> DNA

<213> Homo sapiens

<400> 4551

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<213> Homo sapiens

<400> 4552

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Ser Ala Ala His Cys Pro Val Pro Gly Ile Ser Glu Gly Pro Arg Thr				
	35	40	45	
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<400> 4553

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300					
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<211> 705

<212> PRT

<213> Homo sapiens

<400> 4554

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Thr	Val	Asp	Cys	Asn	Asp	Leu	Gly	Leu	Leu	Thr	Phe	Pro	Ala	Arg	Leu
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Ile	Glu	Tyr	Ser	Thr	Asp	Phe	Pro	Val	Asn	Leu	Thr	Gly	Leu	Asp	Leu
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	115						120					125			
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His	Asn	Leu	Leu	Arg	Leu	His	Leu	Asn	Ser	Asn	Arg	Leu	Gln	Met	Ile
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Tyr	Ile	His	Pro	Asn	Ala	Phe	Phe	Arg	Leu	Pro	Lys	Leu	Glu	Ser	Leu
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Cys	Asp	Cys	Val	Ile	Arg	Trp	Met	Asn	Met	Asn	Lys	Thr	Asn	Ile	Arg
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Phe	Met	Glu	Pro	Asp	Ser	Leu	Phe	Cys	Val	Asp	Pro	Pro	Glu	Phe	Gln
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Gly	Gln	Asn	Val	Arg	Gln	Val	His	Phe	Arg	Asp	Met	Met	Glu	Ile	Cys
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Leu	Pro	Leu	Ile	Ala	Pro	Glu	Ser	Phe	Pro	Ser	Asn	Leu	Asn	Val	Glu
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Ile	Gln	Ala	Asn	Ser	Val	Leu	Val	Ser	Trp	Lys	Ala	Ser	Ser	Lys	Ile
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Leu	Lys	Ser	Ser	Val	Lys	Trp	Thr	Ala	Phe	Val	Lys	Thr	Glu	Asn	Ser
545					550					555					560
His	Ala	Ala	Gln	Ser	Ala	Arg	Ile	Pro	Ser	Asp	Val	Lys	Val	Tyr	Asn
				565					570					575	
Leu	Thr	His	Leu	Asn	Pro	Ser	Thr	Glu	Tyr	Lys	Ile	Cys	Ile	Asp	Ile
			580					585					590		
Pro	Thr	Ile	Tyr	Gln	Lys	Asn	Arg	Lys	Lys	Cys	Val	Asn	Val	Thr	Thr
	595					600						605			
Lys	Gly	Leu	His	Pro	Asp	Gln	Lys	Glu	Tyr	Glu	Lys	Asn	Asn	Thr	Thr
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Thr	Leu	Met	Ala	Cys	Leu	Gly	Gly	Leu	Leu	Gly	Ile	Ile	Gly	Val	Ile
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Cys	Leu	Ile	Ser	Cys	Leu	Ser	Pro	Glu	Met	Asn	Cys	Asp	Gly	Gly	His
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Ser	Tyr	Val	Arg	Asn	Tyr	Leu	Gln	Lys	Pro	Thr	Phe	Ala	Leu	Gly	Glu
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Leu	Tyr	Pro	Pro	Leu	Ile	Asn	Leu	Trp	Glu	Ala	Gly	Lys	Glu	Lys	Ser
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Thr	Ser	Leu	Lys	Val	Lys	Ala	Thr	Val	Ile	Gly	Leu	Pro	Thr	Asn	Met
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<210> 4555

<211> 1128

<212> DNA

<213> Homo sapiens

<400> 4555

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<210> 4556

<211> 67

<212> PRT

<213> Homo sapiens

<400> 4556

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Leu	Asp	Thr	Pro	Gly	Val	Leu	Ala	Pro	Arg	Ile	Glu	Ser	Val	Glu	Thr
			20					25					30		
Gly	Leu	Lys	Leu	Ala	Leu	Cys	Gly	Thr	Val	Leu	Asp	His	Leu	Val	Gly
		35					40					45			
Glu	Glu	Thr	Met	Ala	Asp	Tyr	Leu	Leu	Tyr	Thr	Leu	Asn	Lys	His	Gln
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<210> 4557

<211> 446

<212> DNA

<213> Homo sapiens

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<210> 4558

<211> 148

<212> PRT

<213> Homo sapiens

<400> 4558

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Glu Thr Ser Arg Ala Phe Leu Pro Pro Pro Ser Asp Val Arg Val Arg
50 55 60

Ser Cys Leu Tyr His Trp Ser Ala Thr Ala His Leu Pro Pro Leu Ser
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Lys Lys Pro Pro Cys Thr Ile Ser His Leu Arg Pro Leu Leu Gly Leu
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Pro Pro Pro Ser Asp Leu His Ile Pro Ser Ala Ala Thr Leu Gly Pro
100 105 110

Cys Met His Trp Pro Pro Pro Ser Asp Ala Pro Cys Thr Ile Ser Leu
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Ala Leu Asp Ala Leu Leu Gly Leu Pro Pro Pro Ser Asp His His Ile
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<210> 4559

<211> 919

<212> DNA

<213> Homo sapiens

<400> 4559

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<210> 4560

<211> 126

<212> PRT

<213> Homo sapiens

<400> 4560

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<212> DNA

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<400> 4561

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<211> 1182

<212> PRT

<213> Homo sapiens

<400> 4562

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<210> 4566

<211> 247

<212> PRT

<213> Homo sapiens

<400> 4566

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			20					25				30			
Glu	Ile	Leu	Arg	Leu	Arg	Gln	Ser	Glu	Arg	Met	Ser	Gln	Asp	Asp	Phe
		35				40					45				
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780

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<210> 4568
 <211> 120
 <212> PRT
 <213> Homo sapiens

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 Val Gln Gln Arg Glu Leu Ala Val Thr Ser Pro Lys Asp Gly Ser Ile
 50 55 60
 Ser Ile Leu Gly Ser Asp Ala Thr Thr Cys His Ile Val Val Leu
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 Arg His Thr Gly Asn Gly Ala Thr Cys Leu Thr His Cys Asp Gly Thr
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<210> 4569
 <211> 1797
 <212> DNA
 <213> Homo sapiens

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<211> 141
 <212> PRT
 <213> Homo sapiens

<400> 4570

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Gln Thr Trp His Ile Arg Phe Gly Asp Asn Gly Leu Gly Thr Leu Met
      35           40           45
Leu Leu Gly Pro Gly Glu Thr Val Leu Arg Gln Lys Leu Gly Val Gln
      50           55           60
Gly Gly Pro Arg Val Arg His Cys Gly Glu Gly Asn Ala Gly Glu Ser
      65           70           75           80
Gly Pro Thr Leu Gln Leu Gly Thr Arg Gly Arg Lys Gln Arg Gly Gln
      85           90           95
Ala Ser Val Pro Leu Pro Gln Glu Gln Thr Ser Gly Pro Gln Glu Gly
      100          105          110
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<210> 4571
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<400> 4571

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<211> 126

<212> PRT

<213> Homo sapiens

<400> 4572

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Lys	Thr	Gln	Gln	Asn	Arg	Lys	Leu	Thr	Asp	Phe	Tyr	Pro	Val	Arg	Arg
			20					25					30		
Ser	Ser	Arg	Lys	Ser	Lys	Ala	Glu	Leu	Gln	Ser	Glu	Glu	Arg	Lys	Arg
			35					40					45		
Ile	Asp	Glu	Leu	Ile	Glu	Ser	Gly	Lys	Glu	Glu	Gly	Met	Lys	Ile	Asp
			50					55					60		
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Arg	Gly	Asp	Phe	Val	Glu	Tyr	His	Gly	Asp	Leu	Ile	Glu	Ile	Glu	Thr
				85				90						95	
Asp	Ala	Lys	Lys	Arg	Glu	Ala	Leu	Tyr	Ala	Gln	Asp	Pro	Ser	Thr	Gly
				100				105						110	
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<211> 309

<212> DNA

<213> Homo sapiens

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<210> 4574
<211> 103
<212> PRT
<213> Homo sapiens

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Ala Gly Ala Val Gly Thr Pro Gly Lys Arg Gly Pro Ser Gly Pro Gln
50 55 60
Gly Leu Leu Gly Pro Pro Gly Pro Pro Ala Pro Val Gly Pro Pro His
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<211> 1068
<212> DNA
<213> Homo sapiens

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<211> 107

<212> PRT

<213> Homo sapiens

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			20					25					30		
Pro	Ala	Arg	His	Val	Ala	Thr	Ala	Gln	Gly	Glu	Val	Leu	Pro	Pro	Gly
		35					40					45			
Gly	Leu	Gly	Gly	Ala	Ala	Gln	Arg	Ala	Arg	Gly	Gln	Ser	His	Gly	Gly
	50					55				60					
Thr	Val	Pro	Gly	Asn	Ala	Pro	Ala	Ala	Asp	Leu	Leu	Ala	Leu	Ser	Pro
65				70					75					80	
Arg	Leu	Glu	Arg	Ser	Gly	Thr	Ile	Ser	Thr	His	Cys	Lys	Leu	Arg	Leu
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<211> 3525

<212> DNA

<213> Homo sapiens

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<210> 4578

<211> 1007

<212> PRT

<213> Homo sapiens

<400> 4578

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Ser Val Gln Cys Thr Pro Pro Ser Ser Ser Ser Gly Ser Gln Gly Ser
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Gly Gln Lys Pro Trp Pro Trp His Leu Leu Leu Pro Ile Gly Asn Glu
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Gly Leu Ile His Glu Leu His Phe Met Asp Glu Leu Val Lys Val Glu
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Gln Gly Ser Asp Gly Leu His Phe Val Arg Thr His His Val Ala Glu
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Lys Thr Thr Leu Tyr Asp Met Asp Ile Asp Ile Thr Gln Lys Tyr Val
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Ala Val Ala Cys Gln Asp Arg Asn Val Arg Val Tyr Asn Thr Val Asn
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Gly Lys Gln Lys Lys Cys Tyr Lys Gly Ser Gln Gly Asp Glu Gly Ser
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Leu Leu Lys Val His Val Asp Pro Ser Gly Thr Phe Leu Ala Thr Ser
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Cys Ser Asp Lys Ser Ile Ser Val Ile Asp Phe Tyr Ser Gly Glu Cys
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Ile Ala Lys Met Phe Gly His Ser Gly Gly Cys Ala Ser Leu Leu Gly
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Met Pro Pro His Pro Pro Thr Pro Ser Asp Ser Glu Gly Lys Cys Ser
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Leu Ser Ala Leu Phe Ala Glu Ile Ile Thr Ser Met Lys Phe Thr Tyr
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Asp Cys His His Leu Ile Thr Val Ser Gly Asp Ser Cys Val Phe Ile
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Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu Leu
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Glu Ile Asp His Arg Gln Gln Gln His Thr Asn Asp Lys Lys Arg
      355          360          365
Ser Gly His Pro Arg Ser Trp Gln Pro Leu Pro Val His Gln Arg Asp
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Glu Ser Leu Pro Gly Pro His Gly Val Met Leu Gly Thr Gln Ser Ser
385          390          395          400
Leu Pro Ala Asn Gln Arg Gln Ala Ala Thr Val Gly Lys Ala Ala Gly

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Thr	Gly	Tyr	Ala	Ser	Pro	Asp	Arg	Thr	His	Ser	Val	Pro	Ser	Ala	Ser		
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785					790					795					800		
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Asp	Thr	Gln	Pro	Gly	Val	Thr	Val	Pro	Ala	Val	Ser	Phe	Pro	Ala	Pro		
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Ser	Pro	Val	Glu	Glu	Ser	Ala	Leu	Arg	Leu	His	Gly	Ser	Ala	Phe	Arg		

835	840	845
Pro Ser Leu Pro Ala Pro Glu Ser Pro Gly Leu Pro Ala His Pro Ser		
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Asn Pro Gln Leu Pro Glu Ala Arg Pro Gly Ile Pro Gly Gly Thr Ala		
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Ser Leu Leu Glu Pro Thr Ser Gly Trp Gly Thr Ser Cys Thr Gly Cys		
885	890	895
Arg Pro Pro Ser Lys Lys Pro Ser Thr Phe Thr Val Cys Trp Ser Pro		
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Val Ala Arg Trp Thr Pro Gly Ser Ser Arg His Gly Leu Ser Trp Ser		
915	920	925
Pro Pro Ser Cys Gly Ser Thr Ala Ser Trp Arg Leu Asn Ala Trp Trp		
930	935	940
Gly Leu Val Trp Pro Gln Pro Arg Leu Cys Pro Ala Gln Asp Pro Arg		
945	950	955
Pro His Arg Arg Cys Thr Pro Trp Pro Ala Gln Thr Cys Arg Pro Cys		
965	970	975
Trp Asn Thr Thr Arg Ser Cys Trp Cys Arg Pro Cys Gly Gly Arg His		
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 <212> DNA
 <213> Homo sapiens

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 35 40 45
 Leu Glu Ile Asp His Arg Gln Gln Gln Gln His Thr Asn Asp Lys Lys

50		55		60
Arg Ser Gly Pro Pro Arg Gln Asp Thr Tyr Val Ser Thr Pro Ser Glu				
65		70		75
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<211> 1396

<212> DNA

<213> Homo sapiens

<400> 4581

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 <211> 354
 <212> PRT
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 35 40 45
 Leu Ala Lys Lys Glu Ala Lys Glu Arg Lys Lys Arg Glu Lys Met Gly
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 Trp Gly Glu Glu Tyr Met Gly Tyr Thr Asn Thr Asp Asn Pro Phe Gly
 65 70 75 80
 Asp Asn Asn Leu Leu Gly Thr Phe Ile Trp Asn Lys Ala Leu Glu Lys
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 Lys Gly Ile Ser His Leu Glu Glu Lys Glu Leu Lys Glu Arg Asn Lys
 100 105 110
 Arg Ile Gln Glu Asp Asn Arg Leu Glu Leu Gln Lys Val Lys Gln Leu
 115 120 125
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 130 135 140
 Met Leu Gln Arg Val Lys Gly Thr Glu His Phe Lys Thr Trp Glu Glu
 145 150 155 160
 Gln Glu Asp Asn Phe His Leu Gln Gln Ala Lys Leu Arg Ser Lys Ile
 165 170 175
 Arg Ile Arg Asp Gly Arg Ala Lys Pro Ile Asp Leu Leu Ala Lys Tyr
 180 185 190
 Ile Ser Ala Glu Asp Asp Asp Leu Ala Gly Glu Met His Glu Pro Tyr
 195 200 205
 Thr Phe Leu Asn Gly Leu Thr Val Ala Asp Met Glu Asp Leu Leu Glu
 210 215 220
 Asp Ile Gln Val Tyr Met Glu Leu Glu Gln Gly Lys Asn Ala Asp Phe
 225 230 235 240
 Trp Arg Asp Met Thr Thr Ile Thr Glu Asp Glu Ile Ser Lys Leu Arg
 245 250 255
 Lys Leu Glu Ala Ser Gly Lys Gly Pro Gly Glu Arg Arg Glu Gly Val
 260 265 270
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 275 280 285
 Tyr Asn Gln Leu Gln Val Ile Phe Gln Gly Ile Glu Gly Lys Ile Arg
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 Ala Gly Gly Pro Asn Leu Asp Met Gly Tyr Trp Glu Ser Leu Leu Gln

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<210> 4583

<211> 3350

<212> DNA

<213> Homo sapiens

<400> 4583

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<211> 923

<212> PRT

<213> Homo sapiens

<400> 4584

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Trp	Leu	Gly	Glu	Leu	Gln	Arg	Ser	Val	His	Ala	Trp	Glu	Ile	Ser	Asp
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Gln	Leu	Leu	Gln	Ile	Arg	Gln	Asp	Val	Glu	Ser	Cys	Tyr	Phe	Ala	Ala
	50					55					60				
Gln	Thr	Met	Lys	Met	Lys	Ile	Gln	Thr	Ser	Phe	Tyr	Glu	Leu	Pro	Thr
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Leu	Lys	Asp	Leu	Ser	Pro	Val	Ile	Val	Thr	Gln	Leu	Ala	Leu	Ala	Ile
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Ala	Asp	Leu	Ala	Leu	Gln	Met	Pro	Ser	Trp	Lys	Gly	Cys	Val	Gln	Thr
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Ser	Ser	Thr	Val	Ser	Leu	Leu	Met	Thr	Cys	Val	Glu	Lys	Ala	Gly	
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	260	265	270			
Val Leu Thr Leu Glu Thr	Ala Tyr His Met Ala Val	Ala Arg Glu Asp				
	275	280	285			
Leu Asp Lys Val Leu Asn Tyr	Cys Arg Ile Phe Thr	Glu Leu Cys Glu				
	290	295	300			
Thr Phe Leu Glu Lys Ile	Val Cys Thr Pro Gly Gln	Gly Leu Gly Asp				
305	310	315	320			
Leu Arg Thr Leu Glu Leu Leu	Ile Cys Ala Gly His Pro	Gln Tyr				
	325	330	335			
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Leu Tyr Lys Thr Asn Asp	Glu Val Ile His Gly Ile	Phe Lys Ala Tyr				
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Ile Gln Arg Leu Leu His	Ala Leu Ala Arg His Cys	Gln Leu Glu Pro				
	370	375	380			
Asp His Glu Gly Val Pro	Glu Glu Thr Asp Asp Phe	Gly Glu Phe Arg				
385	390	395	400			
Met Arg Val Ser Asp Leu	Val Lys Asp Leu Ile Phe	Leu Ile Gly Ser				
	405	410	415			
Met Glu Cys Phe Ala Gln	Leu Tyr Ser Thr Leu Lys	Glu Gly Asn Pro				
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Pro Trp Glu Val Thr Glu	Ala Val Leu Phe Ile Met	Ala Ala Ile Ala				
	435	440	445			
Lys Ser Val Asp Pro Glu	Asn Asn Pro Thr Leu Val	Glu Val Leu Glu				
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Gly Val Val Arg Leu Pro	Glu Thr Val His Thr Ala	Val Arg Tyr Thr				
465	470	475	480			
Ser Ile Glu Leu Val Gly	Glu Met Ser Glu Val Val	Asp Arg Asn Pro				
	485	490	495			
Gln Phe Leu Asp Pro Val	Leu Gly Tyr Leu Met Lys	Gly Leu Cys Glu				
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Lys Pro Leu Ala Ser Ala	Ala Ala Lys Ala Ile His	Asn Ile Cys Ser				
	515	520	525			
Val Cys Arg Asp His Met	Ala Gln His Phe Asn Gly	Leu Leu Glu Ile				
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Ala Arg Ser Leu Asp Ser	Phe Leu Leu Ser Pro Glu	Ala Ala Val Gly				
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Lys Lys Leu Ser Gln Glu	Pro Ser Asn Gly Ile Ser	Ser Asp Pro				
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Thr Val Phe Leu Asp Arg	Leu Ala Val Ile Phe Arg	His Thr Asn Pro				
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Ile Val Glu Asn Gly Gln	Thr His Pro Cys Gln Lys	Val Ile Gln Glu				
625	630	635	640			
Ile Trp Pro Val Leu Ser	Glu Thr Leu Asn Lys His	Arg Ala Asp Asn				
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Val Gly Lys Gly Ser Ala Ala	Leu Leu Gln Pro Leu Val Thr Gln Met	
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Val Asn Val Tyr His Val His	Gln His Ser Cys Phe Leu Tyr Leu Gly	
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Ser Ile Leu Val Asp Glu Tyr Gly Met Glu Glu Gly Cys Arg Gln Gly		
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Leu Leu Asp Met Leu Gln Ala Leu Cys Ile Pro Thr Phe Gln Leu Leu		
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Glu Gln Gln Asn Gly Leu Gln Asn His Pro Asp Thr Val Asp Asp Leu		
740	745	750
Phe Arg Leu Ala Thr Arg Phe Ile Gln Arg Ser Pro Val Thr Leu Leu		
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Arg Ser Gln Val Val Ile Pro Ile Leu Gln Trp Ala Ile Ala Ser Thr		
770	775	780
Thr Leu Asp His Arg Asp Ala Asn Cys Ser Val Met Arg Phe Leu Arg		
785	790	795
Asp Leu Ile His Thr Gly Val Ala Asn Asp His Glu Glu Asp Phe Glu		
805	810	815
Leu Arg Lys Glu Leu Ile Gly Gln Val Met Asn Gln Leu Gly Gln Gln		
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Leu Val Ser Gln Leu Leu His Thr Cys Cys Phe Cys Leu Pro Pro Tyr		
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Thr Leu Pro Asp Val Ala Glu Val Leu Trp Glu Ile Met Gln Val Asp		
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Arg Pro Thr Phe Cys Arg Trp Leu Glu Asn Ser Leu Lys Gly Leu Pro		
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Lys Glu Thr Thr Val Gly Ala Val Thr Val Thr His Lys Gln Leu Thr		
885	890	895
Asp Phe His Lys Gln Val Thr Ser Ala Glu Glu Cys Lys Gln Val Cys		
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Trp Ala Leu Arg Asp Phe Thr Arg Leu Phe Arg		
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<210> 4585

<211> 1952

<212> DNA

<213> Homo sapiens

<400> 4585

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<210> 4586

<211> 530
 <212> PRT
 <213> Homo sapiens

<400> 4586

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Lys Asp Val His Lys Gly Val Gly Gly Ile Ile Phe Ser Ser Ser Pro
           35           40           45
Ile Leu Asp Leu Ser Glu Ser Gly Leu Cys Arg Leu Glu Glu Val Phe
           50           55           60
Arg Ile Pro Ser Leu Gln Gln Leu His Leu Gln Arg Asn Ala Leu Cys
65           70           75           80
Val Ile Pro Gln Asp Phe Phe Gln Leu Leu Pro Asn Leu Thr Trp Leu
           85           90           95
Asp Leu Arg Tyr Asn Arg Ile Lys Ala Leu Pro Ser Gly Ile Gly Ala
           100          105          110
His Gln His Leu Lys Thr Leu Leu Leu Glu Arg Asn Pro Ile Lys Met
           115          120          125
Leu Pro Val Glu Leu Gly Ser Val Thr Thr Leu Lys Ala Leu Asn Leu
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Arg His Cys Pro Leu Glu Phe Pro Pro Gln Leu Val Val Gln Lys Gly
145          150          155          160
Leu Val Ala Ile Gln Arg Phe Leu Arg Met Trp Ala Val Glu His Ser
           165          170          175
Leu Pro Arg Asn Pro Thr Ser Gln Glu Ala Pro Pro Val Arg Glu Met
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Thr Leu Arg Asp Leu Pro Ser Pro Gly Leu Glu Leu Ser Gly Asp His
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Ala Ser Asn Gln Gly Ala Val Asn Ala Gln Asp Pro Glu Gly Ala Val
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Met Lys Glu Lys Ala Ser Phe Leu Pro Pro Val Glu Lys Pro Asp Leu
225          230          235          240
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Glu Glu Ile Arg Arg Phe Trp Lys Leu Arg Gln Glu Ile Val Glu His
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Val Lys Ala Asp Val Leu Gly Asp Gln Leu Leu Thr Arg Glu Leu Pro
           275          280          285
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Glu Ser Arg Ala Ala Ala Leu Arg Glu Leu Gln Glu Lys Gln Ala Leu
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Met Glu Gln Arg Arg Glu Lys Arg Ala Leu Gln Glu Trp Arg Glu
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Arg Ala Gln Arg Met Arg Lys Arg Lys Glu Glu Leu Ser Lys Leu Leu
           370          375          380
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385 390 395 400
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 Arg Glu Gln Arg Arg Phe His Gly Gln Ala Pro Leu Glu Glu Met Arg
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 465 470 475 480
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 485 490 495
 Ala Leu Thr Gly Asn Leu Ser Leu Gly Leu Pro Ala Ala Gln Pro Gln
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<210> 4587
 <211> 1723
 <212> DNA
 <213> Homo sapiens

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<210> 4588

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4588

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			20					25				30			
Pro	Ser	Lys	Lys	Gly	Glu	Thr	Pro	Thr	Val	Asp	Gly	Thr	Trp	Lys	Thr
		35					40				45				
Pro	Ser	Phe	Pro	Lys	Lys	Lys	Thr	Ala	Ala	Ser	Ser	Asn	Gly	Ser	Gly
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Gln	Pro	Leu	Asp	Lys	Lys	Ala	Ala	Val	Ser	Trp	Leu	Thr	Pro	Ala	Pro
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Ser	Lys	Lys	Ala	Asp	Ser	Val	Ala	Ala	Lys	Val	Asp	Leu	Leu	Gly	Glu
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Phe	Gln	Ser	Ala	Leu	Pro	Lys	Ile	Asn	Ser	His	Pro	Thr	Arg	Ser	Gln
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Lys	Lys	Ser	Ser	Gln	Lys	Lys	Ser	Ser	Lys	Lys	Asn	His	Pro	Gln	Lys
		115				120					125				
Asn	Ala	Pro	Gln	Asn	Ser	Thr	Gln	Ala	His	Ser	Glu	Asn	Lys	Cys	Ser

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Gly Ala Ser Gln Lys Leu Pro Arg Lys Met Val Ala Ile Asp Cys Glu		
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Met Val Gly Thr Gly Pro Lys Gly His Val Ser Ser Leu Ala Arg Cys		160
	165	170
Ser Ile Val Asn Tyr Asn Gly Asp Val Leu Tyr Asp Glu Tyr Ile Leu		175
	180	185
Pro Pro Cys His Ile Val Asp Tyr Arg Thr Arg Trp Ser Gly Ile Arg		190
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Lys Gln His Met Val Asn Ala Thr Pro Phe Lys Ile Ala Arg Gly Gln		205
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Ile Leu Lys Ile Leu Thr Gly Lys Ile Val Val Gly His Ala Ile His		220
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Asn Asp Phe Lys Ala Leu Gln Tyr Phe His Pro Lys Ser Leu Thr Arg		240
	245	250
Asp Thr Ser His Ile Pro Pro Leu Asn Arg Lys Ala Asp Cys Pro Glu		255
	260	265
Asn Ala Thr Met Ser Leu Lys His Leu Thr Lys Lys Leu Leu Asn Arg		270
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Asp Ile Gln Val Gly Lys Ser Gly His Ser Ser Val Glu Asp Ala Gln		285
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<211> 585

<212> DNA

<213> Homo sapiens

<400> 4589

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<210> 4590

<211> 121
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 His Thr Leu Ser Pro Leu Ser Phe Arg Cys Ser Gln Arg Glu Pro Gln
 50 55 60
 Gly Phe Arg Pro Gly Met Arg Cys Gly Gly Ser Ser Leu Gly Arg Thr
 65 70 75 80
 Cys Cys Ser Pro Thr Arg Arg Ala Cys Val Val Ser Arg Ala Val Thr
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<210> 4591
 <211> 496
 <212> DNA
 <213> Homo sapiens

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 <212> PRT
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Ala Pro Leu Trp Pro Ser Gly His Asp Arg Leu His Glu Thr Arg Lys			
	50	55	60
Leu Arg Cys Leu Ala Asp Arg Leu Val Ser Pro His Pro Ala Ser Ser			
65	70	75	80
Pro Gly Ser Arg Tyr Leu Pro Gln Asn Ser Leu His Lys Trp Pro Gln			
	85	90	95
Ala Cys Ala Gly Leu Trp Gly Phe Leu Pro Trp Ala Val Val Leu Gly			
	100	105	110
Met Cys Ser Pro Gln Ala Asp Gly Gln Leu Trp Glu Gly Trp Ser Cys			
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Arg Leu Gly Ile His Thr Pro Ala His Val Ala Ser Pro Ser Ala Val			
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Trp Ser Gln Gly Trp Ala Gly Lys			
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<210> 4593

<211> 4783

<212> DNA

<213> Homo sapiens

<400> 4593

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<210> 4594

<211> 1145

<212> PRT

<213> Homo sapiens

<400> 4594

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Phe	Ser	Ser	Phe	Ala	Ser	Gln	Ala	Ser	Gly	Ser	Ser	Ser	Ser	Ala	Thr
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Thr	Val	Thr	Ser	Lys	Val	Ala	Pro	Ser	Trp	Pro	Glu	Ser	His	Ser	Ser
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Ala	Asp	Ser	Ala	Ser	Leu	Ala	Lys	Lys	Lys	Pro	Leu	Phe	Ile	Thr	Thr
65				70					75				80		
Asp	Ser	Ser	Lys	Leu	Val	Ser	Gly	Val	Leu	Gly	Ser	Ala	Leu	Thr	Ser
		85						90					95		
Gly	Gly	Pro	Ser	Leu	Ser	Ala	Met	Gly	Asn	Gly	Arg	Ser	Ser	Ser	Pro
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Thr	Ser	Ser	Leu	Thr	Gln	Pro	Ile	Glu	Met	Pro	Thr	Leu	Ser	Ser	Ser
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Pro	Thr	Glu	Glu	Arg	Pro	Thr	Val	Gly	Pro	Gly	Gln	Gln	Asp	Asn	Pro
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Leu	Leu	Lys	Thr	Phe	Ser	Asn	Val	Phe	Gly	Arg	His	Ser	Gly	Gly	Phe
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Leu	Ser	Ser	Pro	Ala	Asp	Phe	Ser	Gln	Glu	Asn	Lys	Ala	Pro	Phe	Glu
		165						170					175		
Ala	Val	Lys	Arg	Phe	Ser	Leu	Asp	Glu	Arg	Ser	Leu	Ala	Cys	Arg	Gln

Leu Ala Asp Leu Ala Thr Gln Lys Ala Lys Glu Glu Thr Lys Glu Ala

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Leu Asp Ser Phe Asn Ser Thr Ala Lys Val Ser Pro Leu Thr Pro Lys		640
	645	650
Leu Phe Asn Ser Leu Leu Leu Gly Pro Thr Ala Ser Asn Asn Lys Thr		655
	660	665
Glu Gly Ser Ser Leu Arg Asp Leu Leu His Ser Gly Pro Gly Lys Leu		670
	675	680
Pro Gln Thr Pro Leu Asp Thr Gly Ile Pro Phe Pro Pro Val Phe Ser		685
	690	695
Thr Ser Ser Ala Gly Val Lys Ser Lys Ala Ser Leu Pro Asn Phe Leu		700
705	710	715
Asp His Ile Ile Ala Ser Val Val Glu Asn Lys Lys Thr Ser Asp Ala		720
	725	730
Ser Lys Arg Ala Cys Asn Leu Thr Asp Thr Gln Lys Glu Val Lys Glu		735
	740	745
Met Val Met Gly Leu Asn Val Leu Asp Pro His Thr Ser His Ser Trp		750
	755	760
Leu Cys Asp Gly Arg Leu Leu Cys Leu His Asp Pro Ser Asn Lys Asn		765
	770	775
Asn Trp Lys Ile Phe Arg Glu Cys Trp Lys Gln Gly Gln Pro Val Leu		780
785	790	795
Val Ser Gly Val His Lys Lys Leu Lys Ser Glu Leu Trp Lys Pro Glu		800
	805	810
Ala Phe Ser Gln Glu Phe Gly Asp Gln Asp Val Asp Leu Val Asn Cys		815
	820	825
Arg Asn Cys Ala Ile Ile Ser Asp Val Lys Val Arg Asp Phe Trp Asp		830
	835	840
Gly Phe Glu Ile Ile Cys Lys Arg Leu Arg Ser Glu Asp Gly Gln Pro		845
	850	855
Met Val Leu Lys Leu Lys Asp Trp Pro Pro Gly Glu Asp Phe Arg Asp		860
865	870	875
Met Met Pro Thr Arg Phe Glu Asp Leu Met Glu Asn Leu Pro Leu Pro		880
	885	890
Glu Tyr Thr Lys Arg Asp Gly Arg Leu Asn Leu Ala Ser Arg Leu Pro		895
	900	905
Ser Tyr Phe Val Arg Pro Asp Leu Gly Pro Lys Met Tyr Asn Ala Tyr		910
	915	920
Gly Leu Ile Thr Ala Glu Asp Arg Arg Val Gly Thr Thr Asn Leu His		925
	930	935
Leu Asp Val Ser Asp Ala Val Asn Val Met Val Tyr Val Gly Ile Pro		940
945	950	955
Ile Gly Glu Gly Ala His Asp Glu Glu Val Leu Lys Thr Ile Asp Glu		960
	965	970
Gly Asp Ala Asp Glu Val Thr Lys Gln Arg Ile His Asp Gly Lys Glu		975
	980	985
Lys Pro Gly Ala Leu Trp His Ile Tyr Ala Ala Lys Asp Ala Glu Lys		990
	995	1000
Ile Arg Glu Leu Leu Arg Lys Val Gly Glu Glu Gln Gly Gln Glu Asn		1005
	1010	1015
Pro Pro Asp His Asp Pro Ile His Asp Gln Ser Trp Tyr Leu Asp Gln		1020
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Thr Leu Arg Lys Arg Leu Tyr Glu Glu Tyr Gly Val Gln Gly Trp Ala		1040

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Ile Val Gln Phe Leu Gly Asp Ala Val Phe Ile Pro Ala Gly Ala Pro					
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His Gln Val His Asn Leu Tyr Ser Cys Ile Lys Val Ala Glu Asp Phe					
	1075		1080		1085
Val Ser Pro Glu His Val Lys His Cys Phe Arg Leu Thr Gln Glu Phe					
	1090		1095		1100
Arg His Leu Ser Asn Thr His Thr Asn His Glu Asp Lys Leu Gln Val					
	1105		1110		1115
Lys Asn Ile Ile Tyr His Ala Val Lys Asp Ala Val Gly Thr Leu Lys					
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Ala His Glu Ser Lys Leu Ala Arg Ser					
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<210> 4595

<211> 935

<212> DNA

<213> Homo sapiens

<400> 4595

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<210> 4596

<211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4596
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 35 40 45
 Gly Arg Glu Ala Ala Leu Pro Gly Pro Ala Gly Asp Xaa Ala Val Lys
 50 55 60
 Gly Pro Ala Asp Pro Ala Ala Gln His Ser Arg Asp Gly Gln Gly Gly
 65 70 75 80
 Trp Pro Pro Ala Gln Gly Thr Ala Ser Thr Ala Gly Lys Ser Gly Ala
 85 90 95
 Pro Gly Ala Trp Ser Val Gly Gly Ala Thr Gly Pro Arg Gly Ala Lys
 100 105 110
 Gly Pro Arg Thr Gly Arg Pro Ala Pro Ser Pro Gly Ser Pro Pro Arg
 115 120 125
 Glu Ser Arg Cys Leu Ala Pro Gly Pro Ser Arg Leu Asp Pro Gly Pro
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<210> 4597
 <211> 515
 <212> DNA
 <213> Homo sapiens

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<210> 4598

<211> 135
 <212> PRT
 <213> Homo sapiens

<400> 4598

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Pro Gly Pro Trp Gly Val Gly Arg Gly Thr Cys Leu Thr Ala Gln Leu
      35           40           45
Leu Leu Ser Ala Pro Phe Cys Leu Leu Pro Ala Leu Ser Gln Ala Val
      50           55           60
Ser Pro Arg Asn Ser Leu Arg Asn Ile Leu Thr Leu Asn Ser Thr Ala
65           70           75           80
Glu Pro Ser Ser Trp Glu Ser Arg Glu Arg Pro Leu Gln Ser Arg Asn
      85           90           95
Val Tyr Ser Ser Ala Ser Phe Ser Glu His Leu Asp Gly Gly Cys Ser
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Val Asp Gln Ser Leu Arg Glu
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<210> 4599
 <211> 2314
 <212> DNA
 <213> Homo sapiens

<400> 4599

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720

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<210> 4600
 <211> 228
 <212> PRT
 <213> Homo sapiens

<400> 4600
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 35 40 45
 Phe Arg Met Glu Ser Gly Ile Glu Pro Ser Val Asp Leu Glu Thr Leu
 50 55 60
 Asp Glu Arg Ile Lys Ile Arg Glu Met Ile Leu Lys Gly Gln Ile Gln
 65 70 75 80
 Glu Ala Ile Ala Leu Ile Asn Ser Leu His Pro Glu Leu Leu Asp Thr
 85 90 95
 Asn Arg Tyr Leu Tyr Phe His Leu Gln Gln His Leu Ile Glu Leu
 100 105 110
 Ile Arg Gln Arg Glu Thr Glu Ala Ala Leu Glu Phe Ala Gln Thr Gln
 115 120 125
 Leu Ala Glu Gln Gly Glu Glu Ser Arg Glu Cys Leu Thr Glu Met Glu
 130 135 140
 Arg Thr Leu Ala Leu Leu Ala Phe Asp Ser Pro Glu Glu Ser Pro Phe
 145 150 155 160
 Gly Asp Leu Leu His Thr Met Gln Arg Gln Lys Val Trp Ser Glu Val
 165 170 175
 Asn Gln Ala Val Leu Asp Tyr Glu Asn Arg Glu Ser Thr Pro Lys Leu
 180 185 190
 Ala Lys Leu Leu Lys Leu Leu Leu Trp Ala Gln Asn Glu Leu Asp Gln
 195 200 205
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 Glu Glu Pro Lys
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<210> 4601
 <211> 916
 <212> DNA
 <213> Homo sapiens

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 180
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 300

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<210> 4602

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4602

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		20						25					30	Asn
Ala	Val	Arg	Ser	Tyr	Tyr	Glu	Val	Phe	Leu	Lys	Ser	Asp	Arg	Val
		35					40					45		Ala
Arg	Met	Val	Gln	Ser	Gly	Gly	Cys	Ser	Ala	Asn	Asp	Phe	Arg	Glu
	50					55					60			Val
Phe	Lys	Lys	Asn	Ile	Glu	Lys	Arg	Val	Arg	Ser	Leu	Pro	Glu	Ile
65					70				75					80
Gly	Leu	Ser	Lys	Glu	Thr	Val	Leu	Ser	Ser	Trp	Ile	Ala	Lys	Tyr
				85					90					95
Ala	Ile	Tyr	Arg	Gly	Glu	Glu	Asp	Leu	Cys	Lys	Gln	Pro	Asn	Arg
			100					105					110	Met
Ala	Leu	Ser	Ala	Val	Ser	Glu	Leu	Ile	Leu	Ser	Lys	Glu	Gln	Leu
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Glu	Met	Phe	Gln	Gln	Ile	Leu	Gly	Ile	Lys	Lys	Leu	Glu	His	Gln
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Leu	Tyr	Asn	Ala	Cys	Gln	Leu	Asp	Asn	Ala	Asp	Glu	Gln	Ala	Ala
145					150					155				Gln
Ile	Arg	Arg	Glu	Leu	Asp	Gly	Arg	Leu	Gln	Leu	Ala	Asp	Lys	Met
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Lys	Glu	Arg	Lys	Phe	Pro	Lys	Phe	Ile	Ala	Lys	Asp	Met	Glu	Asn
			180					185					190	Met
Tyr	Ile	Glu	Glu	Leu	Arg	Ser	Ser	Val	Asn	Leu	Leu	Met	Ala	Asn

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225	230	235
Glu Ile Gln Leu Ser Lys Ser Asp Val Val Leu Ser Phe Thr Leu Glu		
245	250	255
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260	265	270
Ile Val Tyr Cys Thr Met Glu Val Glu Gly Glu Lys Leu Gln Thr Asp		
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<210> 4603

<211> 2090

<212> DNA

<213> Homo sapiens

<400> 4603

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<210> 4604

<211> 666

<212> PRT

<213> Homo sapiens

<400> 4604

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<210> 4605

<211> 2998

<212> DNA

<213> Homo sapiens

<400> 4605

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<210> 4606

<211> 584

<212> PRT

<213> Homo sapiens

<400> 4606

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Trp	Ser	Leu	Pro	Asp	Gly	Ser	Leu	Val	Asn	Ser	Phe	Met	Gln	Ser	Asp	35	40	45	
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Leu	Tyr	Phe	Asn	Glu	Val	Gly	Met	Arg	Glu	Glu	Gly	Asp	Tyr	Thr	Cys	65	70	75	80
Phe	Ala	Glu	Asn	Gln	Val	Gly	Lys	Asp	Glu	Met	Arg	Val	Arg	Val	Lys	85	90	95	
Val	Val	Thr	Ala	Pro	Ala	Thr	Ile	Arg	Asn	Lys	Thr	Cys	Leu	Ala	Val	100	105	110	
Gln	Val	Pro	Tyr	Gly	Asp	Val	Val	Thr	Val	Ala	Cys	Glu	Ala	Lys	Gly	115	120	125	
Glu	Pro	Met	Pro	Lys	Val	Thr	Trp	Leu	Ser	Pro	Thr	Asn	Lys	Val	Ile	130	135	140	
Pro	Thr	Ser	Ser	Glu	Lys	Tyr	Gln	Ile	Tyr	Gln	Asp	Gly	Thr	Leu	Leu	145	150	155	160
Ile	Gln	Lys	Ala	Gln	Arg	Ser	Asp	Ser	Gly	Asn	Tyr	Thr	Cys	Leu	Val	165	170	175	
Arg	Asn	Ser	Ala	Gly	Glu	Asp	Arg	Lys	Thr	Val	Trp	Ile	His	Val	Asn	180	185	190	
Val	Gln	Pro	Pro	Lys	Ile	Asn	Gly	Asn	Pro	Asn	Pro	Ile	Thr	Thr	Val	195	200	205	
Arg	Glu	Ile	Ala	Ala	Gly	Gly	Ser	Arg	Lys	Leu	Ile	Asp	Cys	Lys	Ala				

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Ser Ala Ala Gly	Thr Pro Thr Pro Ser Leu	Val Trp Val Leu Pro Asn
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Gly Thr Asp Leu	Gln Ser Gly Gln Gln Leu	Gln Arg Phe Tyr His Lys
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Ala Tyr Arg Cys	Val Ala Arg Asn Ala Ala	Gly His Thr Glu Arg Leu
370	375	380
Val Ser Leu Lys	Val Gly Leu Lys Pro Glu	Ala Asn Lys Gln Tyr His
385	390	395
Asn Leu Val Ser	Ile Ile Asn Gly Glu Thr	Leu Lys Leu Pro Cys Thr
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Met His Leu Glu	Gly Pro Gln Thr Leu Gly	Arg Val Ser Leu Leu Asp
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Tyr Val Cys Arg	Met Glu Thr Glu Tyr Gly	Pro Ser Val Thr Ser Ile
465	470	475
Pro Val Ile Val	Ile Ala Tyr Pro Pro Arg	Ile Thr Ser Glu Pro Thr
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Pro Val Ile Tyr	Thr Arg Pro Gly Asn Thr	Val Lys Leu Asn Cys Met
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Ala Met Gly Ile	Pro Lys Ala Asp Ile Thr	Trp Glu Leu Pro Asp Lys
515	520	525
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530	535	540
Leu His Pro Gln	Gly Ser Leu Thr Ile Gln	His Ala Thr Gln Arg Asp
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<211> 456

<212> DNA

<213> Homo sapiens

<400> 4607

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<211> 107

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<213> Homo sapiens

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Phe	Gln	Met	Thr	Gln	Glu	Val	Val	Cys	Asp	Glu	Cys	Pro	Asn	Val	Lys
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Leu	Val	Asn	Glu	Glu	Arg	Thr	Leu	Glu	Val	Glu	Ile	Glu	Pro	Gly	Val
	50					55				60					
Arg	Asp	Gly	Met	Glu	Tyr	Pro	Phe	Ile	Gly	Glu	Gly	Glu	Pro	His	Val
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Asp	Gly	Xaa	Pro	Gly	Asp	Leu	Arg	Phe	Arg	Ile	Lys	Val	Val	Lys	His
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<210> 4609

<211> 904

<212> DNA

<213> Homo sapiens

<400> 4609

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<210> 4610
 <211> 250
 <212> PRT
 <213> Homo sapiens

<400> 4610
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 Gly Gly Thr Lys Val Pro Leu Glu Ala Arg Pro Val Arg Phe Leu Asp
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 Asn Phe Ser Ser Gly Arg Arg Gly Ala Thr Ser Ala Glu Ala Phe Leu
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 85 90 95
 Pro Tyr Ala His Arg Phe Pro Pro Gln Thr Trp Leu Ser Ala Leu Arg
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 Pro Ser Gly Pro Ala Leu Ser Gly Leu Leu Ser Leu Glu Ala Glu Glu
 115 120 125
 Asn Ala Leu Pro Gly Phe Ala Glu Ala Leu Arg Ser Tyr Gln Glu Ala
 130 135 140
 Ala Ala Ala Gly Thr Phe Leu Ala Val Glu Phe Thr Thr Leu Ala Asp
 145 150 155 160
 Tyr Leu His Leu Leu Gln Ala Ala Ala Gln Ala Leu Asn Pro Leu Gly
 165 170 175
 Pro Ser Ala Met Phe Tyr Leu Ala Ala Ala Val Ser Asp Phe Tyr Val
 180 185 190
 Pro Val Ser Glu Met Pro Glu His Lys Ile Gln Ser Ser Gly Gly Pro

	195		200		205
Leu	Gln Gly Lys Val Gln	Leu Glu Asp Ile Leu	His His Leu Glu Lys		
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Glu	Glu Ile Asn Pro Leu	Ala Thr Thr Glu Glu	Gln Leu Cys Leu Val		
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Leu	Ile Pro Ala Ser Thr	Val Lys Thr Gly			
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<210> 4611
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 <213> Homo sapiens

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<210> 4612

<211> 532

<212> PRT

<213> Homo sapiens

<400> 4612

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			20					25					30		
Ala	Ala	Ala	Ala	Ile	Ala	Val	Ala	Ala	Ala	Glu	Glu	Glu	Arg	Arg	Leu
			35				40						45		
Arg	Gln	Arg	Asn	Arg	Leu	Arg	Leu	Glu	Glu	Asp	Lys	Pro	Ala	Val	Glu
			50			55					60				
Arg	Cys	Leu	Glu	Glu	Leu	Val	Phe	Gly	Asp	Val	Glu	Asn	Asp	Glu	Asp
65					70				75					80	
Ala	Leu	Leu	Arg	Arg	Leu	Arg	Gly	Pro	Arg	Val	Gln	Glu	His	Glu	Asp
			85					90						95	
Ser	Gly	Asp	Ser	Glu	Val	Glu	Asn	Glu	Ala	Lys	Gly	Asn	Phe	Pro	Pro
			100					105					110		
Gln	Lys	Lys	Pro	Val	Trp	Val	Asp	Glu	Glu	Asp	Glu	Asp	Glu	Glu	Met
			115				120					125			
Val	Asp	Met	Met	Asn	Asn	Arg	Phe	Arg	Lys	Asp	Met	Met	Lys	Asn	Ala
			130			135					140				
Ser	Glu	Ser	Lys	Leu	Ser	Lys	Asp	Asn	Leu	Lys	Lys	Arg	Leu	Lys	Glu
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<210> 4613
<211> 454
<212> DNA
<213> Homo sapiens

<400> 4613
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<210> 4614
 <211> 117
 <212> PRT
 <213> Homo sapiens

<400> 4614
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 35 40 45
 Asp Phe Leu Ile Phe Thr Thr Gln Ile Leu Thr Ile Leu Gln Leu Arg
 50 55 60
 Ser Leu Asn Ile Ile Tyr Asn Lys Gln Asn Leu Val Asn Leu Gln Lys
 65 70 75 80
 Ser Asn Ala Leu Lys Lys His Gln Ser Leu Cys Met Cys Arg Thr Asp
 85 90 95
 Pro Ala Pro Gln Gly Asn Thr Ala Gly Thr Val Pro Arg Thr Leu Thr
 100 105 110
 Ser Val Ser Leu Leu
 115

<210> 4615
 <211> 1350
 <212> DNA
 <213> Homo sapiens

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 240

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 1350

<210> 4616

<211> 188

<212> PRT

<213> Homo sapiens

<400> 4616

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			20					25					30		
Arg	Lys	Asp	Met	Asp	Glu	Val	Glu	Glu	Lys	Ser	Lys	Asp	Val	Ile	Asn
		35					40					45			
Phe	Thr	Ala	Glu	Lys	Leu	Ser	Val	Asp	Glu	Val	Ser	Gln	Leu	Val	Ile
	50					55					60				
Ser	Pro	Leu	Cys	Gly	Ala	Ile	Ser	Leu	Phe	Val	Gly	Thr	Thr	Arg	Asn

65					70					75				80	
Asn	Phe	Glu	Gly	Lys	Lys	Val	Ile	Ser	Leu	Glu	Tyr	Glu	Ala	Tyr	Leu
				85					90					95	
Pro	Met	Ala	Glu	Asn	Glu	Val	Arg	Lys	Ile	Cys	Ser	Asp	Ile	Arg	Gln
			100					105					110		
Lys	Trp	Pro	Val	Lys	His	Ile	Ala	Val	Phe	His	Leu	Leu	Gly	Leu	Val
		115				120						125			
Pro	Val	Ser	Glu	Ala	Ser	Thr	Val	Ile	Ala	Val	Ser	Ser	Ala	His	Arg
	130					135					140				
Ala	Ala	Ser	Leu	Glu	Ala	Val	Ser	Tyr	Ala	Ile	Asp	Ser	Leu	Lys	Ala
145					150					155				160	
Lys	Val	Pro	Ile	Trp	Lys	Lys	Glu	Ile	Tyr	Glu	Glu	Ser	Ser	Thr	Trp
			165					170						175	
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<210> 4617

<211> 2266

<212> DNA

<213> Homo sapiens

<400> 4617

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<210> 4618

<211> 197

<212> PRT

<213> Homo sapiens

<400> 4618

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<210> 4619
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<212> DNA
<213> Homo sapiens
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<210> 4620
<211> 103
<212> PRT
<213> Homo sapiens
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<400> 4620

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Leu Gln Ala Arg Pro Asn Pro Arg Phe Pro Gly Arg Cys Thr Pro Gly
 35           40           45
Trp Glu Lys Leu Thr Asn Glu Ser Ser Trp Gln Pro Pro Gln Ala Pro
 50           55           60
Pro Asp Trp Ala Ser Trp Leu Cys Cys Gln Asp Tyr Asp Pro Leu Pro
 65           70           75           80
Glu Ser Arg Arg Ser Pro Gln Ala Glu Arg Tyr Arg His Leu Cys Pro
 85           90           95
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<210> 4621

<211> 2588

<212> DNA

<213> Homo sapiens

<400> 4621

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960

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2588

<210> 4622

<211> 403

<212> PRT

<213> Homo sapiens

<400> 4622

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          20          25          30
Ile Gly Lys Lys Gly Glu Thr Val Lys Arg Ile Arg Glu Gln Ser Ser
          35          40          45
Ala Arg Ile Thr Ile Ser Glu Gly Ser Cys Pro Glu Arg Ile Thr Thr
          50          55          60
Ile Thr Gly Ser Thr Ala Ala Val Phe His Ala Val Ser Met Ile Ala
65          70          75          80
Phe Lys Leu Asp Glu Asp Leu Cys Ala Ala Pro Ala Asn Gly Gly Asn
          85          90          95
Val Ser Arg Pro Pro Val Thr Leu Arg Leu Val Ile Pro Ala Ser Gln
          100          105          110
Cys Gly Ser Leu Ile Gly Lys Ala Gly Thr Lys Ile Lys Glu Ile Arg
          115          120          125
Glu Thr Thr Gly Ala Gln Val Gln Val Ala Gly Asp Leu Leu Pro Asn
          130          135          140
Ser Thr Glu Arg Ala Val Thr Val Ser Gly Val Pro Asp Ala Ile Ile
145          150          155          160
Leu Cys Val Arg Gln Ile Cys Ala Val Ile Leu Glu Ser Pro Pro Lys
          165          170          175
Gly Ala Thr Ile Pro Tyr His Pro Ser Leu Ser Leu Gly Thr Val Leu
          180          185          190
Leu Ser Ala Asn Gln Gly Phe Ser Val Gln Gly Gln Tyr Gly Ala Val
          195          200          205
Thr Pro Ala Glu Val Thr Lys Leu Gln Gln Leu Ser Ser His Ala Val
          210          215          220
Pro Phe Ala Thr Pro Ser Val Val Pro Gly Leu Asp Pro Gly Thr Gln
225          230          235          240
Thr Ser Ser Gln Glu Phe Leu Val Pro Asn Asp Leu Ile Gly Cys Val
          245          250          255
Ile Gly Arg Gln Gly Ser Lys Ile Ser Glu Ile Arg Gln Met Ser Gly
          260          265          270
Ala His Ile Lys Ile Gly Asn Gln Ala Glu Gly Ala Gly Glu Arg His
          275          280          285
Val Thr Ile Thr Gly Ser Pro Val Ser Ile Ala Leu Ala Gln Tyr Leu
          290          295          300
Ile Thr Ala Cys Leu Glu Thr Ala Lys Ser Thr Ser Gly Gly Thr Pro
305          310          315          320
Gly Ser Ala Pro Ala Asp Leu Pro Thr Pro Phe Ser Pro Pro Leu Thr
          325          330          335
Ala Leu Pro Thr Ala Pro Pro Gly Leu Glu Gly Thr Pro Tyr Ala Ile
          340          345          350
Ser Leu Ser Asn Phe Ile Gly Leu Lys Pro Val Pro Phe Leu Ala Leu

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355						360						365					
Pro	Pro	Ala	Ser	Pro	Gly	Pro	Pro	Pro	Gly	Leu	Ala	Ala	Tyr	Thr	Ala		
370						375						380					
Lys	Met	Ala	Ala	Ala	Asn	Gly	Ser	Lys	Lys	Ala	Glu	Arg	Gln	Lys	Phe		
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Ser	Pro	Tyr															

<210> 4623
 <211> 2220
 <212> DNA
 <213> Homo sapiens

<400> 4623
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 120
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 180
 atgcctctag tgaagaaaaa gaagaagaaa aagaaggggtg tcagcacctt ttgcgaggag
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 420
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 480
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 840
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 1200

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 2100
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<210> 4624

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4624

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			20					25					30		
Asp	Pro	Trp	Lys	Glu	Glu	Thr	Asp	Thr	Asp	Leu	Glu	Val	Val	Leu	Glu
		35				40						45			
Lys	Lys	Gly	Asn	Met	Asp	Glu	Ala	His	Ile	Asp	Gln	Val	Arg	Arg	Lys
	50					55				60					
Ala	Leu	Gln	Glu	Glu	Ile	Asp	Arg	Glu	Ser	Gly	Lys	Thr	Glu	Ala	Ser
65					70					75				80	
Glu	Thr	Arg	Lys	Trp	Thr	Gly	Thr	Gln	Phe	Gly	Gln	Trp	Asp	Thr	Ala
			85					90					95		
Gly	Phe	Glu	Asn	Glu	Asp	Gln	Lys	Leu	Lys	Phe	Leu	Arg	Leu	Met	Gly

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      100      105      110
Gly Phe Lys Asn Leu Ser Pro Ser Phe Ser Arg Pro Ala Ser Thr Ile
      115      120      125
Ala Arg Pro Asn Met Ala Leu Gly Lys Lys Ala Ala Asp Ser Leu Gln
      130      135      140
Gln Asn Leu Gln Arg Asp Tyr Asp Arg Ala Met Ser Trp Lys Tyr Ser
145      150      155      160
Arg Gly Ala Gly Leu Gly Phe Ser Thr Ala Pro Asn Lys Ile Phe Tyr
      165      170      175
Ile Asp Arg Asn Ala Ser Lys Ser Val Lys Leu Glu Asp
      180      185

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<210> 4625
 <211> 334
 <212> DNA
 <213> Homo sapiens

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<400> 4625
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120
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180
ctaaagtccc tgcagcagca gcaacagcag cagcagcttc agaaacagca gcagcagcag
240
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334

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<210> 4626
 <211> 111
 <212> PRT
 <213> Homo sapiens

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<400> 4626
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1      5      10      15
Asp Met Gln Ala Leu Arg Arg Glu Glu Glu Arg Arg Gln Ala Glu Arg
20      25      30
Glu Gln Glu Tyr Lys Arg Lys Gln Leu Glu Glu Gln Arg Gln Ser Glu
35      40      45
Arg Leu Gln Arg Gln Leu Gln Glu His Ala Tyr Leu Lys Ser Leu
50      55      60
Gln Gln Gln Gln Gln Gln Gln Gln Leu Gln Lys Gln Gln Gln Gln Gln
65      70      75      80
Leu Leu Pro Gly Asp Arg Lys Pro Leu Tyr His Tyr Gly Arg Gly Met
85      90      95
Asn Pro Ala Asp Lys Pro Ala Trp Ala Arg Glu Gly Glu Glu Arg
100      105      110

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<210> 4627
 <211> 1736

<212> DNA

<213> Homo sapiens

<400> 4627

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120
gtgcacgccc ggagtttga gaccttcca tcaagtggac ctgattttgg aggattagga
180
gaagaagctg aatttgttga agttgagcct gaagctaaac aggaaattct tgaaaacaaa
240
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300
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360
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420
gacacatgtc aaggtgatgg cgcacttcca aatggggttag acgttacctt tgaagtaact
480
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540
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1380
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<210> 4628

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4628

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			20					25					30		
Pro	Glu	Ala	Lys	Gln	Glu	Ile	Leu	Glu	Asn	Lys	Asp	Val	Val	Val	Gln
			35				40					45			
His	Val	His	Phe	Asp	Gly	Leu	Gly	Arg	Thr	Lys	Asp	Asp	Ile	Ile	Ile
			50			55					60				
Cys	Glu	Ile	Gly	Asp	Val	Phe	Lys	Ala	Lys	Asn	Leu	Ile	Glu	Val	Met
65					70					75				80	
Arg	Lys	Ser	His	Glu	Ala	Arg	Glu	Lys	Leu	Leu	Arg	Leu	Gly	Ile	Phe
				85					90					95	
Arg	Gln	Val	Asp	Val	Leu	Ile	Asp	Thr	Cys	Gln	Gly	Asp	Gly	Ala	Leu
			100					105					110		
Pro	Asn	Gly	Leu	Asp	Val	Thr	Phe	Glu	Val	Thr	Glu	Leu	Arg	Arg	Leu
			115				120					125			
Thr	Gly	Ser	Tyr	Asn	Thr	Met	Val	Gly	Asn	Asn	Glu	Gly	Ser	Met	Val
			130			135					140				
Leu	Gly	Leu	Lys	Leu	Pro	Asn	Leu	Leu	Gly	Arg	Ala	Glu	Lys	Val	Thr
145					150					155				160	
Phe	Gln	Phe	Ser	Tyr	Gly	Thr	Lys	Glu	Thr	Ser	Tyr	Gly	Leu	Ser	Phe
				165					170					175	
Phe	Lys	Pro	Arg	Pro	Gly	Asn	Phe	Glu	Arg	Asn	Phe	Ser	Val	Asn	Leu
			180					185					190		
Tyr	Lys	Val	Thr	Gly	Gln	Phe	Pro	Trp	Ser	Ser	Leu	Arg	Glu	Thr	Asp
			195				200					205			
Arg	Gly	Met	Ser	Ala	Glu	Tyr	Ser	Phe	Pro	Ile	Trp	Lys	Thr	Ser	His
			210			215					220				
Thr	Val	Lys	Trp	Glu	Gly	Val	Trp	Arg	Glu	Leu	Gly	Cys	Leu	Ser	Arg
225					230					235				240	
Thr	Ala	Ser	Phe	Ala	Val	Arg	Lys	Glu	Ser	Gly	His	Ser	Leu	Lys	Ser
				245					250					255	
Ser	Leu	Ser	His	Ala	Met	Val	Ile	Asp	Ser	Arg	Asn	Ser	Ser	Ile	Leu
			260					265					270		
Pro	Arg	Arg	Gly	Ala	Leu	Leu	Lys	Val	Asn	Gln	Glu	Leu	Ala	Gly	Tyr
			275				280					285			
Thr	Gly	Gly	Asp	Val	Ser	Phe	Ile	Lys	Glu	Asp	Phe	Glu	Leu	Gln	Leu
			290			295					300				
Asn	Lys	Gln	Leu	Ile	Phe	Asp	Ser	Val	Phe	Ser	Ala	Ser	Phe	Trp	Gly


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305          310          315          320
Gly Met Leu Val Pro Ile Gly Asp Lys Pro Ser Ser Ile Ala Asp Arg
          325          330          335
Phe Tyr Leu Gly Gly Pro Thr Ser Val Arg Gly Phe Ser Met His Ser
          340          345          350
Ile Gly Pro Gln Ser Glu Gly Asp Tyr Leu Gly Gly Glu Ala Tyr Trp
          355          360          365
Ala Gly Gly Leu His Leu Tyr Thr Pro Leu Pro Phe Arg Pro Gly Gln
          370          375          380
Gly Gly Phe Gly Glu Leu Phe Arg Thr His Phe Phe Leu Asn Ala Gly
385          390          395          400
Asn Leu Cys Asn Leu Asn Tyr Gly Glu Gly Pro Lys Ala His Ile Arg
          405          410          415
Lys Leu Ala Glu Cys Ile Arg Trp Ser Tyr Gly Ala Gly Ile Val Leu
          420          425          430
Arg Leu Gly Asn Ile Ala Arg Leu Glu Leu Asn Tyr Cys Val Pro Met
          435          440          445
Gly Val Gln Thr Gly Asp Arg Ile Cys Asp Gly Val Gln Phe Gly Ala
          450          455          460
Gly Ile Arg Phe Leu
465

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<210> 4629

<211> 706

<212> DNA

<213> Homo sapiens

<400> 4629

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706

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<210> 4630

<211> 140
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ser Trp Ala Leu Arg Val Ser Val Phe Pro Gln Ile Gly Lys Met Arg
 50 55 60
 Gly Arg Gly Gly Tyr Trp Gly Gln Ala Ser Ala Gln Pro Trp Val Leu
 65 70 75 80
 Leu Glu Pro Gly Leu Glu Pro Glu Val Gly Arg Val Ser Lys Leu Ser
 85 90 95
 Ser Trp Ile Pro Ile Cys Arg Thr Ala Pro Arg Thr Arg Ser Gly Val
 100 105 110
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 115 120 125
 Gly Gln Gly Thr Arg Asp Pro Pro Thr Gln Glu Thr
 130 135 140

<210> 4631
 <211> 2756
 <212> DNA
 <213> Homo sapiens

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2340

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<210> 4632

<211> 372

<212> PRT

<213> Homo sapiens

<400> 4632

Met	Ala	Ala	Glu	Arg	Gln	Glu	Ala	Leu	Arg	Glu	Phe	Val	Ala	Val	Thr
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Gly	Ala	Glu	Glu	Asp	Arg	Ala	Arg	Phe	Phe	Leu	Glu	Ser	Ala	Gly	Trp
			20					25					30		
Asp	Leu	Gln	Ile	Ala	Leu	Ala	Ser	Phe	Tyr	Glu	Asp	Gly	Gly	Asp	Glu
		35					40					45			
Asp	Ile	Val	Thr	Ile	Ser	Gln	Ala	Thr	Pro	Ser	Ser	Val	Ser	Arg	Gly
	50					55					60				
Thr	Ala	Pro	Ser	Asp	Asn	Arg	Val	Thr	Ser	Phe	Arg	Asp	Leu	Ile	His
	65				70					75				80	
Asp	Gln	Asp	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Gly	Gln	Arg	Ser	Arg	Phe
			85					90					95		
Tyr	Ala	Gly	Gly	Ser	Glu	Arg	Ser	Gly	Gln	Gln	Ile	Val	Gly	Pro	Pro
		100					105					110			
Arg	Lys	Lys	Ser	Pro	Asn	Glu	Leu	Val	Asp	Asp	Leu	Phe	Lys	Gly	Ala
		115				120					125				
Lys	Glu	His	Gly	Ala	Val	Ala	Val	Glu	Arg	Val	Thr	Lys	Ser	Pro	Gly
	130					135					140				
Glu	Thr	Ser	Lys	Pro	Arg	Pro	Phe	Ala	Gly	Gly	Gly	Tyr	Arg	Leu	Gly
	145				150					155				160	
Ala	Ala	Pro	Glu	Glu	Glu	Ser	Ala	Tyr	Val	Ala	Gly	Glu	Lys	Arg	Gln
			165					170						175	
His	Ser	Ser	Gln	Asp	Val	His	Val	Val	Leu	Lys	Leu	Trp	Lys	Ser	Gly
		180						185					190		
Phe	Ser	Leu	Asp	Asn	Gly	Glu	Leu	Arg	Ser	Tyr	Gln	Asp	Pro	Ser	Asn
		195				200					205				
Ala	Gln	Phe	Leu	Glu	Ser	Ile	Arg	Arg	Gly	Glu	Val	Pro	Ala	Glu	Leu
	210					215					220				
Arg	Arg	Leu	Ala	His	Gly	Gly	Gln	Val	Asn	Leu	Asp	Met	Glu	Asp	His
	225				230					235				240	
Arg	Asp	Glu	Asp	Phe	Val	Lys	Pro	Lys	Gly	Ala	Phe	Lys	Ala	Phe	Thr
			245						250					255	
Gly	Glu	Gly	Gln	Lys	Leu	Gly	Ser	Thr	Ala	Pro	Gln	Val	Leu	Ser	Thr

<210> 4634

<211> 242
 <212> PRT
 <213> Homo sapiens

<400> 4634

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Met Leu Gln Glu Leu Asp Lys Thr Pro Gly Glu Ser Leu His Gly Tyr
 1           5           10           15
Arg Ile Cys Ile Gln Ala Ile Leu Gln Asp Lys Pro Lys Ile Ala Thr
 20           25           30
Ala Asn Leu Gly Lys Phe Leu Glu Leu Arg Ser His Gln Ser Arg
 35           40           45
Pro Ala Lys Cys Leu Thr Ile Met Trp Ala Leu Gly Gln Ala Gly Phe
 50           55           60
Ala Asn Leu Thr Glu Gly Leu Lys Val Trp Leu Gly Ile Met Leu Pro
 65           70           75           80
Val Leu Gly Ile Lys Ser Leu Ser Pro Phe Ala Ile Thr Tyr Leu Asp
 85           90           95
Arg Leu Leu Leu Met His Pro Asn Leu Thr Lys Gly Phe Gly Met Ile
 100          105          110
Gly Pro Lys Asp Phe Phe Pro Leu Leu Asp Phe Ala Tyr Met Pro Asn
 115          120          125
Asn Ser Leu Thr Pro Ser Leu Gln Glu Gln Leu Cys Gln Leu Tyr Pro
 130          135          140
Arg Leu Lys Val Leu Ala Phe Gly Ala Lys Pro Asp Ser Thr Leu His
 145          150          155          160
Thr Tyr Phe Pro Ser Phe Leu Ser Arg Ala Thr Pro Ser Cys Pro Pro
 165          170          175
Glu Met Lys Lys Glu Leu Leu Ser Ser Leu Thr Glu Cys Leu Thr Val
 180          185          190
Asp Pro Leu Ser Ala Ser Val Trp Arg Gln Leu Tyr Pro Lys His Leu
 195          200          205
Ser Gln Ser Ser Leu Leu Leu Glu His Leu Leu Ser Ser Trp Glu Gln
 210          215          220
Ile Pro Lys Lys Val Gln Lys Ser Leu Gln Glu Thr Ile Gln Ser Leu
 225          230          235          240
Lys Leu

```

<210> 4635
 <211> 384
 <212> DNA
 <213> Homo sapiens

<400> 4635

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ttacaagagt cctgggtcag cccagaaagc ttttctccat tgggtggggg aaggaggtga
120
agtggggccc gaggaggaag gccggtggtg tgtgggcaga gccagccagt ggtggccttc
180
ctcctcccga agatgagttt tgtagcccag gtgtttgcac actcacactt gctcactccc
240
tcacacacaa aacctcact ctttgctttt tctggggaga gggaggccac tggcagaagc
300

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gcctaccctg gccacagtca gttcccatc tcattttcta agaattttat cacaaaacag
360
tttgtcttga ggctgagatg gggg
384

<210> 4636
<211> 108
<212> PRT
<213> Homo sapiens

<400> 4636
Met Leu Gly Gly Pro Val Cys Ser Tyr Glu Leu Gly Gly Cys Pro Val
1 5 10 15
Thr Arg Val Leu Gly Gln Pro Arg Lys Leu Phe Ser Ile Gly Trp Gly
20 25 30
Lys Glu Val Lys Trp Gly Pro Arg Arg Lys Ala Gly Gly Val Trp Ala
35 40 45
Glu Pro Ala Ser Gly Gly Leu Pro Pro Pro Glu Asp Glu Phe Cys Ser
50 55 60
Pro Gly Val Cys Thr Leu Thr Leu Ala His Ser Leu Thr His Lys Thr
65 70 75 80
Leu Thr Leu Cys Phe Phe Trp Gly Glu Gly Gly His Trp Gln Lys Arg
85 90 95
Leu Pro Trp Pro Gln Ser Val Pro Ile Leu Ile Phe
100 105

<210> 4637
<211> 2162
<212> DNA
<213> Homo sapiens

<400> 4637
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120
agctgcttct ctttcaacca ggactgcaca tccctagcaa ttggaactaa agccgggtat
180
aagctgtttt ctctgagttc tgtggagcag ctggatcaag tccacggaag caatgaaatc
240
ccggacgtct acatcgtgga gcgcctcttc tccagcagcc tgggtggtggt agtcagtcac
300
acaaaaccac ggcagatgaa cgtgtatcac ttcaagaaag gcacagagat ctgtaattac
360
agctactcca gcaacatctt gtccataagg ctgaaccggc aaaggctgct ggtttgcccta
420
gaagagtcca tttatattca caacattaaa gacatgaagc tgttgaagac ctcctggat
480
attcctgcaa acccaacagg tctatgtgct ctctctatca accattccaa ttcttacctg
540
gcctatcctg gaagcctgac ttcaggggag attgtgcttt atgatggaaa ctccctgaaa
600
acagtctgca ctattgctgc ccatgaggga acactagctg ccatcacctt caatgcctca
660

ggctccaaac tagcaagtgc gtctgaaaaa ggcacagtca tccgggtggt ctctgtccct
720
gatgggcaaa agctctatga gttccggaga gggatgaaaa ggtatgtgac aatcagctct
780
ctagtgttca gtatggattc acaattcctc tgcgcctcca gtaacaccga gacgggtacac
840
atcttcaagc tggaacaggc caccaacagt cgaccagaag agccttcgac ctggagtggtc
900
tacaatggga agatgtttat ggctgctacc aactacctcc ctacccaggc gtcagacatg
960
atgcacaggc acagggcttt tgccactgca cgcttgaact tctccggaca gaggaacatc
1020
tgtacctct caacgatcca gaagttgcca cggtgctag ttgcgtcatc cagtggacac
1080
ctttatatgt acaatttga tctcaggat ggaggagagt gtgtcttaac caaaaccac
1140
agcttgcttg gctcaggaac aacagaagag aataaagaaa atgacctcag accttcctta
1200
cctcagctct atgcagcgac cgtagccaga ccaagtgcac cttcagcctc cacgggtgcca
1260
ggttattctg aggacggcgg ggcgtgcca ggagaagtta ttctgaaca tgagtttgcg
1320
acgggaccag tgtgtcttga tgatgagaat gagtttctc ctataatctt gtgccgtgga
1380
aatcagaagg gcaaaacgaa gcagtcacga tgagaagcac acctcagaaa tcaggacatc
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1500
gagcagaaag gggggcagga atcccggtg ctccactgct taaaccacag gacctggtta
1560
actcctcacc aagcttccca cgacctggt tgccaatggg cgcgggagac attgtatata
1620
catcatgcta tttaaaatac gttcaaaact tagtgtaaat gctaattaac catatttggt
1680
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1740
gtacttatag gaacatctct ttgaattgta tttcttgat attacatact tagagagaga
1800
ctcttttagc caggcaaagt cttttttggc tgtggctgga ataaatcatt tattacttgg
1860
gagtcacatt ttggacacta ataataaaat catggcaatg catttttgag gtttttatat
1920
atttttttgt ttccttggtg ttatagggga caggaggaac tctttaactt cttttaaatg
1980
cagtcatttc acccttaaaa ggagaggaag gggattgggc cacagactta tccatggact
2040
cgtctgctct gagatctgga aaacgacct actttggtct aaatctgtgc tctcaaggc
2100
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2160
ga
2162

<210> 4638

<211> 446
 <212> PRT
 <213> Homo sapiens

<400> 4638

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Leu Ser Cys Phe Ser Phe Asn Gln Asp Cys Thr Ser Leu Ala Ile Gly
          20           25           30
Thr Lys Ala Gly Tyr Lys Leu Phe Ser Leu Ser Ser Val Glu Gln Leu
          35           40           45
Asp Gln Val His Gly Ser Asn Glu Ile Pro Asp Val Tyr Ile Val Glu
          50           55           60
Arg Leu Phe Ser Ser Ser Leu Val Val Val Val Ser His Thr Lys Pro
65           70           75           80
Arg Gln Met Asn Val Tyr His Phe Lys Lys Gly Thr Glu Ile Cys Asn
          85           90           95
Tyr Ser Tyr Ser Ser Asn Ile Leu Ser Ile Arg Leu Asn Arg Gln Arg
          100          105          110
Leu Leu Val Cys Leu Glu Glu Ser Ile Tyr Ile His Asn Ile Lys Asp
          115          120          125
Met Lys Leu Leu Lys Thr Leu Leu Asp Ile Pro Ala Asn Pro Thr Gly
          130          135          140
Leu Cys Ala Leu Ser Ile Asn His Ser Asn Ser Tyr Leu Ala Tyr Pro
145          150          155          160
Gly Ser Leu Thr Ser Gly Glu Ile Val Leu Tyr Asp Gly Asn Ser Leu
          165          170          175
Lys Thr Val Cys Thr Ile Ala Ala His Glu Gly Thr Leu Ala Ala Ile
          180          185          190
Thr Phe Asn Ala Ser Gly Ser Lys Leu Ala Ser Ala Ser Glu Lys Gly
          195          200          205
Thr Val Ile Arg Val Phe Ser Val Pro Asp Gly Gln Lys Leu Tyr Glu
          210          215          220
Phe Arg Arg Gly Met Lys Arg Tyr Val Thr Ile Ser Ser Leu Val Phe
225          230          235          240
Ser Met Asp Ser Gln Phe Leu Cys Ala Ser Ser Asn Thr Glu Thr Val
          245          250          255
His Ile Phe Lys Leu Glu Gln Val Thr Asn Ser Arg Pro Glu Glu Pro
          260          265          270
Ser Thr Trp Ser Gly Tyr Met Gly Lys Met Phe Met Ala Ala Thr Asn
275          280          285
Tyr Leu Pro Thr Gln Val Ser Asp Met Met His Gln Asp Arg Ala Phe
290          295          300
Ala Thr Ala Arg Leu Asn Phe Ser Gly Gln Arg Asn Ile Cys Thr Leu
305          310          315          320
Ser Thr Ile Gln Lys Leu Pro Arg Leu Leu Val Ala Ser Ser Ser Gly
          325          330          335
His Leu Tyr Met Tyr Asn Leu Asp Pro Gln Asp Gly Gly Glu Cys Val
          340          345          350
Leu Ile Lys Thr His Ser Leu Leu Gly Ser Gly Thr Thr Glu Glu Asn
          355          360          365
Lys Glu Asn Asp Leu Arg Pro Ser Leu Pro Gln Ser Tyr Ala Ala Thr
          370          375          380
Val Ala Arg Pro Ser Ala Ser Ser Ala Ser Thr Val Pro Gly Tyr Ser

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385		390		395		400									
Glu	Asp	Gly	Gly	Ala	Leu	Arg	Gly	Glu	Val	Ile	Pro	Glu	His	Glu	Phe
				405					410					415	
Ala	Thr	Gly	Pro	Val	Cys	Leu	Asp	Asp	Glu	Asn	Glu	Phe	Pro	Pro	Ile
			420					425					430		
Ile	Leu	Cys	Arg	Gly	Asn	Gln	Lys	Gly	Lys	Thr	Lys	Gln	Ser		
		435					440					445			

<210> 4639
 <211> 1007
 <212> DNA
 <213> Homo sapiens

<400> 4639
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 120
 ttaacatttt caatgtcaaa aatacagcac gctgttaaga gttctgtcag tgctcattat
 180
 cccactagat cccacaaagg gcaaactcaa agatgaaaca aaggcaacgc catcaataac
 240
 caccatattc cacaggcttt ctcccctagg acgtactaac agggagtttc cacagggaaa
 300
 aattctcttt taaaaaatta acagtaaaaa taggagttac ttactatcta gatgaacaca
 360
 attggttttc acaaaagctt ttgctgctgt ctggactcac catgcttttt tcttgagaga
 420
 aacataccaa actttttggt gttgttggtg agacggagtt tcgctcttgt tgcccaggct
 480
 agagtgaat ggcgtgatct cagctcactg caacctccgc ctcccaggct caagcgattc
 540
 tcccacctca gcctcccaag tagctaggac tacagggtgtg tgccaccaca cccagctaatt
 600
 tttnnctgta gagacggtnn ttcacatgt tgcccagact ggtctcaaatt tcctgggctc
 660
 aagcaatcta acccccttgg cctcccaaag tgctgggata acagggtgtga gccaccatac
 720
 ccagctacaa agactctttt cccacataag gtcacattca cagggtccaa gtagacatct
 780
 cttttcaggg gaccacagtt caaccacta caactaagca gtgccacact tttcttcagg
 840
 tgggtgtggc ttattggatg tttcattttt aggtgacctt ggccccttgc tgaagaaggg
 900
 atagacccat gccctctgca gaagggctga ggtttaggca aggccaattc cttcccctgt
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 ctcatggcat taacgttcct atgcccggta ggtgtcattc tgctagc
 1007

<210> 4640
 <211> 71
 <212> PRT
 <213> Homo sapiens

<400> 4640

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Met Asn Thr Ile Gly Phe His Lys Ser Phe Cys Cys Cys Leu Asp Ser
 1           5           10           15
Pro Cys Phe Phe Leu Glu Arg Asn Ile Pro Asn Phe Leu Leu Leu
      20           25           30
Leu Arg Arg Ser Phe Ala Leu Val Ala Gln Ala Arg Val Gln Trp Arg
      35           40           45
Asp Leu Ser Ser Leu Gln Pro Pro Pro Arg Leu Lys Arg Phe Ser
      50           55           60
His Leu Ser Leu Pro Ser Ser
65           70

```

<210> 4641

<211> 1873

<212> DNA

<213> Homo sapiens

<400> 4641

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120
gggccgaaga aggttgagaa ggtcgacaaa gatgctgaat tagtggccca atggaactat
180
tgtactctaa gtcaggaaat attaagacga ccaatagttg cctgtgaact tggcagactt
240
tataacaaag atgccgtcat tgaatttctc ttggacaaat ctgcagaaaa ggctcttggg
300
aaggcagcat ctcacattaa aagcattaag aatgtgacag agctgaagct ttctgataat
360
cctgcctggg aaggggataa aggaaacact aaaggtgaca agcacgatga cctccagcgg
420
gcgcgtttca tctgccccgt tgtgggcctg gagatgaacg gccgacacag gttctgcttc
480
cttcggtgct gcggctgtgt gttttctgag cgagccttga aagagataaa agcgggaagtt
540
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600
gaggatgtgg acgtgctgaa gacaaggatg gaggagagaa ggctgagagc gaagctggaa
660
aagaaaacaa agaaacccaa ggcagcagag tctgtttcaa aaccagatgt cagtgaagaa
720
gccccagggc catcaaaagt taagacaggg aagcctgaag aagccagcct tgattctaga
780
gagaagaaaa ccaacttggc tcccaaaagc acagcaatga atgagagctc ttctggaaaa
840
gctgggaagc ctccgtgtgg agccacaaag aggtccatcg ctgacagtga agaatcggag
900
gcctacaagt ccctctttac cactcacagc tccgccaagc gctccaagga ggagtctgcc
960
cactgggtca cccacacgtc ctactgcttc tgaagcccgc actgccaccg ctctgcccc
1020
agaaggttgt ttagtttcca cgtaggcagg tcgctttgtg cctctgagtg cgctgctgtg
1080

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 1140
 cactcttgat gtgaggcgtg tcggttccag gggggacatg ggaggggctg cacagtggcc
 1200
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 1260
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 1320
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 1380
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 1440
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 1620
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa tttttttttt
 1680
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 1740
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 1860
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 1873

<210> 4642

<211> 306

<212> PRT

<213> Homo sapiens

<400> 4642

Met	Gly	Cys	Asp	Gly	Thr	Ile	Pro	Lys	Arg	His	Glu	Leu	Val	Lys
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Gly	Pro	Lys	Lys	Val	Glu	Lys	Val	Asp	Lys	Asp	Ala	Glu	Leu	Val
			20					25					30	Ala
Gln	Trp	Asn	Tyr	Cys	Thr	Leu	Ser	Gln	Glu	Ile	Leu	Arg	Arg	Pro
			35				40					45		Ile
Val	Ala	Cys	Glu	Leu	Gly	Arg	Leu	Tyr	Asn	Lys	Asp	Ala	Val	Ile
	50					55					60			Glu
Phe	Leu	Leu	Asp	Lys	Ser	Ala	Glu	Lys	Ala	Leu	Gly	Lys	Ala	Ala
65					70				75					80
His	Ile	Lys	Ser	Ile	Lys	Asn	Val	Thr	Glu	Leu	Lys	Leu	Ser	Asp
				85				90					95	Asn
Pro	Ala	Trp	Glu	Gly	Asp	Lys	Gly	Asn	Thr	Lys	Gly	Asp	Lys	His
		100					105					110		Asp
Asp	Leu	Gln	Arg	Ala	Arg	Phe	Ile	Cys	Pro	Val	Val	Gly	Leu	Glu
	115						120					125		Met
Asn	Gly	Arg	His	Arg	Phe	Cys	Phe	Leu	Arg	Cys	Cys	Gly	Cys	Val
	130					135					140			Phe
Ser	Glu	Arg	Ala	Leu	Lys	Glu	Ile	Lys	Ala	Glu	Val	Cys	His	Thr
														Cys

145 150 155 160
 Gly Ala Ala Phe Gln Glu Asp Asp Val Ile Met Leu Asn Gly Thr Lys
 165 170 175
 Glu Asp Val Asp Val Leu Lys Thr Arg Met Glu Glu Arg Arg Leu Arg
 180 185 190
 Ala Lys Leu Glu Lys Lys Thr Lys Lys Pro Lys Ala Ala Glu Ser Val
 195 200 205
 Ser Lys Pro Asp Val Ser Glu Glu Ala Pro Gly Pro Ser Lys Val Lys
 210 215 220
 Thr Gly Lys Pro Glu Glu Ala Ser Leu Asp Ser Arg Glu Lys Lys Thr
 225 230 235 240
 Asn Leu Ala Pro Lys Ser Thr Ala Met Asn Glu Ser Ser Ser Gly Lys
 245 250 255
 Ala Gly Lys Pro Pro Cys Gly Ala Thr Lys Arg Ser Ile Ala Asp Ser
 260 265 270
 Glu Glu Ser Glu Ala Tyr Lys Ser Leu Phe Thr Thr His Ser Ser Ala
 275 280 285
 Lys Arg Ser Lys Glu Glu Ser Ala His Trp Val Thr His Thr Ser Tyr
 290 295 300
 Cys Phe
 305

<210> 4643

<211> 1125

<212> DNA

<213> Homo sapiens

<400> 4643

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 120
 acgggaacgc gctatgccgg gaaggtggtg gtcgtgaccg ggggcgggcg cggcatcgga
 180
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 300
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 360
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 420
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 480
 aagctcgccc tcccctacct gcggaagagt caagggaatg tcatcaacat ctccagcctg
 540
 gtgggggcaa tcggccaggc ccaggcagtt ccctatgtgg ccaccaaggg ggcagtaaca
 600
 gccatgacca aagctttggc cctggatgaa agtccatatg gtgtccgagt caactgtatc
 660
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 720
 agggccacaa tccgagaggg catgctggcc cagccactgg gccgcatggg ccagcccgt
 780

gaggtcgggg ctgcggcagt gttcctggcc tccgaagcca acttctgcac gggcattgaa
 840
 ctgctcgtga cgggggggtgc agagctgggg tacgggtgca aggccagtcg gagcaccctcc
 900
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 960
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 1080
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 1125

<210> 4644

<211> 270

<212> PRT

<213> Homo sapiens

<400> 4644

Met	Ala	Thr	Gly	Thr	Arg	Tyr	Ala	Gly	Lys	Val	Val	Val	Val	Thr	Gly
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Gly	Gly	Arg	Gly	Ile	Gly	Ala	Gly	Ile	Val	Arg	Ala	Phe	Val	Asp	Ser
		20					25					30			
Gly	Ala	Arg	Val	Val	Ile	Cys	Asp	Lys	Asp	Glu	Ser	Gly	Gly	Arg	Ala
		35				40						45			
Leu	Glu	Gln	Glu	Leu	Pro	Gly	Ala	Val	Phe	Ile	Leu	Cys	Asp	Val	Thr
	50					55					60				
Gln	Glu	Asp	Asp	Met	Lys	Thr	Leu	Val	Ser	Glu	Thr	Ile	Arg	Arg	Phe
65				70					75					80	
Gly	Arg	Leu	Asp	Cys	Val	Val	Asn	Asn	Ala	Gly	His	His	Pro	Pro	Pro
			85						90					95	
Gln	Arg	Pro	Glu	Glu	Thr	Ser	Ala	Gln	Gly	Phe	Arg	Gln	Leu	Leu	Glu
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Leu	Asn	Leu	Leu	Gly	Thr	Tyr	Thr	Leu	Thr	Lys	Leu	Ala	Leu	Pro	Tyr
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Leu	Arg	Lys	Ser	Gln	Gly	Asn	Val	Ile	Asn	Ile	Ser	Ser	Leu	Val	Gly
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Val	Thr	Ala	Met	Thr	Lys	Ala	Leu	Ala	Leu	Asp	Glu	Ser	Pro	Tyr	Gly
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Val	Arg	Val	Asn	Cys	Ile	Ser	Pro	Gly	Asn	Ile	Trp	Thr	Pro	Leu	Trp
	180							185					190		
Glu	Glu	Leu	Ala	Ala	Leu	Met	Pro	Asp	Pro	Arg	Ala	Thr	Ile	Arg	Glu
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Gly	Met	Leu	Ala	Gln	Pro	Leu	Gly	Arg	Met	Gly	Gln	Pro	Ala	Glu	Val
	210					215					220				
Gly	Ala	Ala	Ala	Val	Phe	Leu	Ala	Ser	Glu	Ala	Asn	Phe	Cys	Thr	Gly
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Ile	Glu	Leu	Leu	Val	Thr	Gly	Gly	Ala	Glu	Leu	Gly	Tyr	Gly	Cys	Lys
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Ala	Ser	Arg	Ser	Thr	Pro	Val	Asp	Ala	Pro	Asp	Ile	Pro	Ser		
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<210> 4645
<211> 1725
<212> DNA
<213> Homo sapiens

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<210> 4646

<211> 358

<212> PRT

<213> Homo sapiens

<400> 4646

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Pro	Arg	Ser	Ala	Ser	Ile	Lys	Asp	Ile	Lys	Lys	Ala	Tyr	Arg	Lys	Leu	35	40	45	
Ala	Leu	Gln	Leu	His	Pro	Asp	Arg	Asn	Pro	Asp	Asp	Pro	Gln	Ala	Gln	50	55	60	
Glu	Lys	Phe	Gln	Asp	Leu	Gly	Ala	Ala	Tyr	Glu	Val	Leu	Ser	Asp	Ser	65	70	75	80
Glu	Lys	Arg	Lys	Gln	Tyr	Asp	Thr	Tyr	Gly	Glu	Glu	Gly	Leu	Lys	Asp	85	90	95	
Gly	His	Gln	Ser	Ser	His	Gly	Asp	Ile	Phe	Ser	His	Phe	Phe	Gly	Asp	100	105	110	
Phe	Gly	Phe	Met	Phe	Gly	Gly	Thr	Pro	Arg	Gln	Gln	Asp	Arg	Asn	Ile	115	120	125	
Pro	Arg	Gly	Ser	Asp	Ile	Ile	Val	Asp	Leu	Glu	Val	Thr	Leu	Glu	Glu	130	135	140	
Val	Tyr	Ala	Gly	Asn	Phe	Val	Glu	Val	Val	Arg	Asn	Lys	Pro	Val	Ala	145	150	155	160
Arg	Gln	Ala	Pro	Gly	Lys	Arg	Lys	Cys	Asn	Cys	Arg	Gln	Glu	Met	Arg	165	170	175	
Thr	Thr	Gln	Leu	Gly	Pro	Gly	Arg	Phe	Gln	Met	Thr	Gln	Glu	Val	Val	180	185	190	
Cys	Asp	Glu	Cys	Pro	Asn	Val	Lys	Leu	Val	Asn	Glu	Glu	Arg	Thr	Leu	195	200	205	
Glu	Val	Glu	Ile	Glu	Pro	Gly	Val	Arg	Asp	Gly	Met	Glu	Tyr	Pro	Phe	210	215	220	
Ile	Gly	Glu	Gly	Glu	Pro	His	Val	Asp	Gly	Glu	Pro	Gly	Asp	Leu	Arg	225	230	235	240
Phe	Arg	Ile	Lys	Val	Val	Lys	His	Pro	Ile	Phe	Glu	Arg	Arg	Gly	Asp	245	250	255	
Asp	Leu	Tyr	Thr	Asn	Val	Thr	Ile	Ser	Leu	Val	Glu	Ser	Leu	Val	Gly	260	265	270	
Phe	Glu	Met	Asp	Ile	Thr	His	Leu	Asp	Gly	His	Lys	Val	His	Ile	Ser	275	280	285	
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290		295		300
Gly Leu Pro Asn Phe Asp	Asn Asn Asn Ile Lys	Gly Ser Leu Ile Ile		
305	310	315		320
Thr Phe Asp Val Asp Phe Pro Lys Glu Gln Leu Thr Glu Glu Ala Arg				
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Glu Gly Ile Lys Gln Leu Leu Lys Gln Gly Ser Val Gln Lys Val Tyr				
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Asn Gly Leu Gln Gly Tyr				
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<210> 4647

<211> 791

<212> DNA

<213> Homo sapiens

<400> 4647

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<210> 4648

<211> 188

<212> PRT

<213> Homo sapiens

<400> 4648

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Leu	Asn	Glu	Lys	Thr	Pro	Lys	Gly	His	Ser	Val	Phe	Met	Asp	Ile	Phe
	35		40		45										
Glu	Leu	Val	Val	Glu	Asn	Gly	Val	Phe	Val	Ala	Asn	Pro	Leu	Gln	Glu
	50		55		60										
Arg	Thr	Ile	Leu	Met	Arg	Lys	Glu	Gly	Glu	Ser	Ala	Lys	Ser	Ile	Asn
	65		70		75									80	
Glu	Met	Leu	Leu	Ser	Arg	Leu	Ser	Arg	Tyr	Arg	Ala	Ser	Pro	Ser	Ala
			85		90									95	
Thr	Leu	Ala	Ala	Leu	Thr	Gly	Ser	Thr	Ile	Ser	Asn	Thr	Leu	Lys	Glu
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Asp	Gln	Ala	Ala	Asn	Thr	Ser	Cys	Gly	Leu	Pro	Leu	Lys	Met	Leu	Arg
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Lys	Thr	Pro	Ile	Tyr	Thr	Cys	Gly	Thr	Tyr	Leu	Val	Met	Leu	Val	Pro
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Pro	Pro	Gly	Gly	Ser	Gly	Ser	Ser	Ala	Thr	Arg	Ser	Leu	Phe	Gly	Gly
	145			150					155					160	
Thr	Ser	Gly	Leu	Ser	Ser	Leu	Lys	Ile	Leu	Ala	Ser	Ser	Leu	Val	Tyr
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<210> 4649

<211> 3276

<212> DNA

<213> Homo sapiens

<400> 4649

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<210> 4650

<211> 965

<212> PRT

<213> Homo sapiens

<400> 4650

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			20					25					30		
Glu	Val	Ala	Val	Lys	Val	Cys	Leu	Leu	Asn	Phe	Met	Ile	Thr	Pro	Leu
		35					40					45			
Gly	Leu	Gln	Asp	Gln	Leu	Leu	Gly	Ile	Val	Ala	Ala	Lys	Glu	Lys	Pro
	50					55				60					
Glu	Leu	Glu	Glu	Lys	Lys	Asn	Gln	Leu	Ile	Val	Glu	Ser	Ala	Lys	Asn
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Lys	Lys	His	Leu	Lys	Glu	Ile	Glu	Asp	Lys	Ile	Leu	Glu	Val	Leu	Ser
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Met	Ser	Lys	Gly	Asn	Ile	Leu	Glu	Asp	Glu	Thr	Ala	Ile	Lys	Val	Leu
			100					105					110		
Ser	Ser	Ser	Lys	Val	Leu	Ser	Glu	Glu	Ile	Ser	Glu	Lys	Gln	Lys	Val
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Ala	Ser	Met	Thr	Glu	Thr	Gln	Ile	Asp	Glu	Thr	Arg	Met	Gly	Tyr	Lys

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	165	170
Leu Tyr Met His Ser Leu Thr His Ser Thr Lys Ser Glu Glu Leu Asn		175
	180	185
Leu Arg Ile Lys Tyr Ile Ile Asp His Phe Thr Leu Ser Ile Tyr Asn		190
	195	200
Asn Val Cys Arg Ser Leu Phe Glu Lys Asp Lys Leu Leu Phe Ser Leu		205
	210	215
Leu Leu Thr Ile Gly Ile Met Lys Gln Lys Lys Glu Ile Thr Glu Glu		220
225	230	235
Val Trp Tyr Phe Leu Leu Thr Gly Gly Ile Ala Leu Asp Asn Pro Tyr		240
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Pro Asn Pro Ala Pro Gln Trp Leu Ser Glu Lys Ala Trp Ala Glu Ile		255
	260	265
Val Arg Ala Ser Ala Leu Pro Lys Leu His Gly Leu Met Glu His Leu		270
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Glu Gln Asn Leu Gly Glu Trp Lys Leu Ile Tyr Asp Ser Ala Trp Pro		285
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His Glu Glu Gln Leu Pro Gly Ser Trp Lys Phe Ser Gln Gly Leu Glu		300
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Lys Met Val Ile Leu Arg Cys Leu Arg Pro Asp Lys Met Val Pro Ala		320
	325	330
Val Arg Glu Phe Ile Ala Glu His Met Gly Lys Leu Tyr Ile Glu Ala		335
	340	345
Pro Thr Phe Asp Leu Gln Gly Ser Tyr Asn Asp Ser Ser Cys Cys Ala		350
	355	360
Pro Leu Ile Phe Val Leu Ser Pro Ser Ala Asp Pro Met Ala Gly Leu		365
	370	375
Leu Lys Phe Ala Asp Asp Leu Gly Met Gly Gly Thr Arg Thr Gln Thr		380
385	390	395
Ile Ser Leu Gly Gln Gly Gln Gly Pro Ile Ala Ala Lys Met Ile Asn		400
	405	410
Asn Ala Ile Lys Asp Gly Thr Trp Val Val Leu Gln Asn Cys His Leu		415
	420	425
Ala Ala Ser Trp Met Pro Thr Leu Glu Lys Ile Cys Glu Glu Val Ile		430
	435	440
Val Pro Glu Ser Thr Asn Ala Arg Phe Arg Leu Trp Leu Thr Ser Tyr		445
	450	455
Pro Ser Glu Lys Phe Pro Val Ser Ile Leu Gln Asn Gly Ile Lys Met		460
465	470	475
Thr Asn Glu Pro Pro Lys Gly Leu Arg Ala Asn Leu Leu Arg Ser Tyr		480
	485	490
Leu Asn Asp Pro Ile Ser Asp Pro Val Phe Phe Gln Ser Cys Ala Lys		495
	500	505
Ala Val Met Trp Gln Lys Met Leu Phe Gly Leu Cys Phe Phe His Ala		510
	515	520
Val Val Gln Glu Arg Arg Asn Phe Gly Pro Leu Gly Trp Asn Ile Pro		525
	530	535
Tyr Glu Phe Asn Glu Ser Asp Leu Arg Ile Ser Met Trp Gln Ile Gln		540
545	550	555
Met Phe Leu Asn Asp Tyr Lys Glu Val Pro Phe Asp Ala Leu Thr Tyr		560

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			580					585					590				
Arg	Arg	Leu	Leu	Leu	Ser	Leu	Leu	Ser	Met	Phe	Tyr	Cys	Lys	Glu	Ile		
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Pro	His	Gly	Ser	Tyr	Gln	Ser	Tyr	Ile	Asp	Tyr	Leu	Arg	Asn	Leu	Pro		
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Thr	Lys	Asp	Asn	Gln	Glu	Thr	Asn	Gln	Leu	Phe	Glu	Gly	Val	Leu	Leu		
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Thr	Leu	Pro	Arg	Gln	Ser	Gly	Gly	Ser	Gly	Lys	Ser	Pro	Gln	Glu	Val		
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Val	Glu	Glu	Leu	Ala	Gln	Asp	Ile	Leu	Ser	Lys	Leu	Pro	Arg	Asp	Phe		
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Asp	Leu	Glu	Glu	Val	Met	Lys	Leu	Tyr	Pro	Val	Val	Tyr	Glu	Glu	Ser		
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Met	Asn	Thr	Val	Leu	Arg	Gln	Glu	Leu	Ile	Arg	Phe	Asn	Arg	Leu	Thr		
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Lys	Val	Val	Arg	Arg	Ser	Leu	Ile	Asn	Leu	Gly	Arg	Ala	Ile	Lys	Gly		
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Gln	Val	Leu	Met	Ser	Ser	Glu	Leu	Glu	Glu	Val	Phe	Asn	Ser	Met	Leu		
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Val	Gly	Lys	Val	Pro	Ala	Met	Trp	Ala	Ala	Lys	Ser	Tyr	Pro	Ser	Leu		
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Lys	Pro	Leu	Gly	Gly	Tyr	Val	Ala	Asp	Leu	Leu	Ala	Arg	Leu	Thr	Phe		
785					790				795					800			
Phe	Gln	Glu	Trp	Ile	Asp	Lys	Gly	Pro	Pro	Val	Val	Phe	Trp	Ile	Ser		
				805				810						815			
Gly	Phe	Tyr	Phe	Thr	Gln	Ser	Phe	Leu	Thr	Gly	Val	Ser	Gln	Asn	Tyr		
			820				825						830				
Ala	Arg	Lys	Tyr	Thr	Ile	Pro	Ile	Asp	His	Ile	Gly	Phe	Glu	Phe	Glu		
		835				840					845						
Val	Thr	Pro	Gln	Glu	Thr	Val	Met	Glu	Asn	Asn	Pro	Glu	Asp	Gly	Ala		
		850			855						860						
Tyr	Ile	Lys	Gly	Leu	Phe	Leu	Glu	Gly	Ala	Arg	Trp	Asp	Arg	Lys	Thr		
865				870					875					880			
Met	Gln	Ile	Gly	Glu	Ser	Leu	Pro	Lys	Ile	Leu	Tyr	Asp	Pro	Leu	Pro		
				885				890						895			
Ile	Ile	Trp	Leu	Lys	Pro	Gly	Glu	Ser	Ala	Met	Phe	Leu	His	Gln	Asp		
			900					905					910				
Ile	Tyr	Val	Cys	Pro	Val	Tyr	Lys	Thr	Ser	Ala	Arg	Arg	Gly	Thr	Leu		
		915				920						925					
Ser	Thr	Thr	Gly	His	Ser	Thr	Asn	Tyr	Val	Leu	Ser	Ile	Glu	Leu	Pro		
		930				935					940						
Thr	Asp	Met	Pro	Gln	Lys	His	Trp	Ile	Asn	Arg	Gly	Val	Ala	Ser	Leu		
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Cys	Gln	Leu	Asp	Asn													
				965													

<210> 4651

<211> 869

<212> DNA
<213> Homo sapiens

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 120
 gccggcgcca gtctggctct gagcctgctg cagaggggtg cgagctacgc gcggaaatgg
 180
 cagcagatgc ggcccatccc cacgggtggc cgcgctacc cactggtggg ccacgcgctg
 240
 ctgatgaagc cggacggggc agaatttttt cagcagatca ttgagtacac agaggaatac
 300
 cgccacatgc cgctgctgaa gctctgggtc gggccagtgc ccatggtggc cctttataat
 360
 gcagaaaatg tggaggtaat tttactagt tcaaagcaaa ttgacaaatc ctctatgtac
 420
 aagtttttag aaccatggct tggcctagga cttcttacia gtactggaaa caaatggcgc
 480
 tccaggagaa agatgttaac acccactttc cattttacca ttctggaaga tttcttagat
 540
 atcatgaatg aacaagcaaa tatattggtt aagaaacttg aaaaacacat taaccaagaa
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 gcatttaact gcttttttta catcactctt tgtgccttag atatcatctg tgaaacagct
 660
 atggggaaga atattggtgc tcaaagtaat gatgattccg agtatgtccg tgcagtttat
 720
 agaatgagtg agatgatatt tccaagaata aagatgcctt ggctttggct tgatctctgg
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 840
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 869

<210> 4652
 <211> 289
 <212> PRT
 <213> Homo sapiens

<400> 4652
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 Gly Ala Ala Ser Ala Val Ser Leu Ala Gly Ala Ser Leu Val Leu Ser
 35 40 45
 Leu Leu Gln Arg Val Ala Ser Tyr Ala Arg Lys Trp Gln Gln Met Arg
 50 55 60
 Pro Ile Pro Thr Val Ala Arg Ala Tyr Pro Leu Val Gly His Ala Leu
 65 70 75 80
 Leu Met Lys Pro Asp Gly Arg Glu Phe Phe Gln Gln Ile Ile Glu Tyr
 85 90 95
 Thr Glu Glu Tyr Arg His Met Pro Leu Leu Lys Leu Trp Val Gly Pro

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<210> 4653
<211> 1276
<212> DNA
<213> Homo sapiens
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3850

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 780
 ctggacttgg agctggatct ccaggcgtcg agaacacggc agaggcagct gaatgaggag
 840
 ctctgcgcc tccgtgagct gcggcagcgg ttggaggacg cccagctccg tggccagact
 900
 gacctccac cctgggtgct tcgggacgag cggctccgtg gcctgctgcg ggaggccgag
 960
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 1020
 aagaaggcct ccaaggagat ctaccagctg cgtgggcaga gccacaaaga gcccatccaa
 1080
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 1140
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 1260
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<210> 4654

<211> 255

<212> PRT

<213> Homo sapiens

<400> 4654

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Pro	Tyr	Ser	Pro	Glu	Lys	Phe	Gln	Pro	Ser	Pro	Leu	Lys	Val	Asp	Lys
			20					25					30		
Glu	Thr	Asn	Thr	Glu	Asp	Leu	Phe	Leu	Glu	Glu	Ala	Ala	Ser	Leu	Val
		35				40						45			
Lys	Glu	Arg	Pro	Ser	Arg	Arg	Ala	Arg	Gly	Ser	Pro	Phe	Val	Arg	Ser
	50				55						60				
Gly	Thr	Ile	Val	Arg	Ser	Gln	Thr	Phe	Ser	Pro	Gly	Ala	Arg	Ser	Gln
65				70					75					80	
Tyr	Val	Cys	Arg	Leu	Tyr	Arg	Ser	Asp	Ser	Asp	Ser	Ser	Thr	Leu	Pro
				85				90						95	
Arg	Lys	Ser	Pro	Phe	Val	Arg	Asn	Thr	Leu	Glu	Arg	Arg	Thr	Leu	Arg
			100					105					110		
Tyr	Lys	Gln	Ser	Cys	Arg	Ser	Ser	Leu	Ala	Glu	Leu	Met	Ala	Arg	Thr
		115					120					125			
Ser	Leu	Asp	Leu	Glu	Leu	Asp	Leu	Gln	Ala	Ser	Arg	Thr	Arg	Gln	Arg
		130				135					140				
Gln	Leu	Asn	Glu	Glu	Leu	Cys	Ala	Leu	Arg	Glu	Leu	Arg	Gln	Arg	Leu
145					150					155				160	
Glu	Asp	Ala	Gln	Leu	Arg	Gly	Gln	Thr	Asp	Leu	Pro	Pro	Trp	Val	Leu
			165					170					175		
Arg	Asp	Glu	Arg	Leu	Arg	Gly	Leu	Leu	Arg	Glu	Ala	Glu	Arg	Gln	Thr
		180					185					190			
Arg	Gln	Thr	Lys	Leu	Asp	Tyr	Arg	His	Glu	Gln	Ala	Ala	Glu	Lys	Met

195	200	205
Leu Lys Lys Ala Ser Lys Glu Ile Tyr Gln Leu Arg Gly Gln Ser His		
210	215	220
Lys Glu Pro Ile Gln Val Gln Thr Phe Arg Glu Lys Ile Ala Phe Phe		
225	230	235
Thr Arg Pro Arg Ile Asn Ile Pro Pro Leu Pro Ala Asp Asp Val		240
245	250	255

<210> 4655
 <211> 456
 <212> DNA
 <213> Homo sapiens

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 180
 cttgatctcc agcacgaaga tgtaaaggaa ccacaggatc atggcgtagc cgcgcttggc
 240
 cgtgcgccacc tcggcgccca cccacacggc cacgtagcgc agcaccagca ggaagcacac
 300
 gtcgcccacc agcacgatga tgcacacgcc gatcttgcg gggccctggt tctgctccac
 360
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 456

<210> 4656
 <211> 152
 <212> PRT
 <213> Homo sapiens

<400> 4656
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 20 25 30
 Gln Gln Gln Arg Gln Arg Leu Ala Arg His Gly Val Arg Arg Ala Ala
 35 40 45
 Pro Arg Arg Leu Val Val Leu Glu Asp Glu Val Glu Leu Asp Leu Gln
 50 55 60
 His Glu Asp Val Lys Glu Pro Gln Asp His Gly Val Ala Ala Leu Gly
 65 70 75 80
 Arg Ala His Leu Gly Ala His Pro His Gly His Val Ala Gln His Gln
 85 90 95
 Gln Glu Ala His Val Ala His Gln His Asp Asp Ala His Ala Asp Leu
 100 105 110
 Ala Arg Ala Leu Val Leu Leu His Gln Val Arg Val His Asp Gly His
 115 120 125
 Ala Ala His Asp His Gln Arg Gly Gln Ala His Val Ala Pro Val Arg

130 135 140
 Gly Arg Gln His His Gly Arg Pro
 145 150

<210> 4657
 <211> 723
 <212> DNA
 <213> Homo sapiens

<400> 4657
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 180
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 240
 ggcgtagaga ttgaggaagg ggggtgtgaaa gtgaagctga cccttgtgga cacacctggc
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 360
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 420
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 480
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 720
 gta
 723

<210> 4658
 <211> 233
 <212> PRT
 <213> Homo sapiens

<400> 4658
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 20 25 30
 Glu Ser Gly Leu Gly Lys Ser Thr Leu Ile Asn Ser Leu Phe Leu Thr
 35 40 45
 Asn Leu Tyr Glu Asp Arg Gln Val Pro Glu Ala Ser Ala Arg Leu Thr
 50 55 60
 Gln Thr Leu Ala Ile Glu Arg Arg Gly Val Glu Ile Glu Glu Gly Gly
 65 70 75 80
 Val Lys Val Lys Leu Thr Leu Val Asp Thr Pro Gly Phe Gly Asp Ser

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<210> 4659
<211> 864
<212> DNA
<213> Homo sapiens
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120
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180
caactggcgag acaggcatgt gtgactgttt cagcgactgc ggagtctgtc tctgtggcac
240
attttgtttc ccgtgccttg ggtgtcaagt tgcagctgat atgaatgaat gctgtctgtg
300
tggaacaagc gtcgcaatga ggactctcta caggaccoga tatggcatcc ctggatctat
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420
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480
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540
ctgaaatatg atggatatgc ttaagtacaa ctgatggcat gaaaaaaaaa aaatttttga
600
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gctttcatat tatcgaattc gaatttcctg gcttataaac tttttaaaatt acatttgaaa
720
tataaaccaa atgaaatatt ttactgataa gattcttcat gcttctttgc tctccttaaa
780
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840

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tttccttttt cttttttttt tttg
864

<210> 4660
<211> 192
<212> PRT
<213> Homo sapiens

<400> 4660
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20 25 30
Ser Val Arg Ala Phe His His Gln Phe Leu Glu Ser Thr His Gly Ser
35 40 45
Pro Ser Val Asp Ile Ser Leu Asp Leu Ala Lys Ser Thr Met Arg Thr
50 55 60
Ala Lys Ser Cys His Ile Val Ile Thr Asn Arg Ser Arg Asp Ala Ile
65 70 75 80
Ser Gly Pro Val Glu Ser Pro His Cys Asp Ala Cys Ser Thr Gln Thr
85 90 95
Ala Phe Ile His Ile Ser Cys Asn Leu Thr Pro Lys Ala Arg Glu Thr
100 105 110
Lys Cys Ala Thr Glu Thr Asp Ser Ala Val Ala Glu Thr Val Thr His
115 120 125
Ala Cys Leu Pro Val Gly Val Leu Gly Gly Arg Thr Gly Thr Asp Ser
130 135 140
Arg Leu Gly His Asn Asp His Arg Arg Leu Ser Leu His Phe Gln Cys
145 150 155 160
Arg Ala Phe His Val Val Phe Ile Cys Gly Glu Ile Leu Ser Gln Ala
165 170 175
Thr Arg His Phe Leu Leu Gly Thr Leu Phe Thr Asn Phe His Cys Phe
180 185 190

<210> 4661
<211> 153
<212> DNA
<213> Homo sapiens

<400> 4661
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<210> 4662
<211> 51
<212> PRT
<213> Homo sapiens

<400> 4662
Arg Ile Cys Met Pro Leu Thr Val Asp Glu Tyr Lys Ile Gly Gln Leu

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Tyr Met Ile Ser Lys His Ser His Glu Gln Ser Asp Arg Gly Glu Gly			
	20	25	30
Val Glu Val Val Gln Asn Glu Pro Phe Glu Asp Pro His His Gly His			
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<210> 4663
 <211> 1550
 <212> DNA
 <213> Homo sapiens

<400> 4663
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 240
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 480
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 780
 gccctctacg gcctgctcat gtcctgccc cagagcagcg ccttcagct gctctgcac
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 1200

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 1380
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 1440
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<210> 4664

<211> 347

<212> PRT

<213> Homo sapiens

<400> 4664

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			20					25					30		
Glu	Ile	Ala	Ser	Ser	Pro	Ala	Gly	Gln	Thr	Asp	Asp	Pro	Gly	Pro	Leu
		35					40					45			
Asp	Gly	Pro	Asp	Leu	Gln	Ala	Ser	His	Ser	Glu	Leu	Gln	Val	Pro	Thr
	50					55					60				
Pro	Gly	Arg	Ala	Gly	Leu	Leu	Asn	Thr	Ser	Gly	Thr	Lys	Gly	Leu	Glu
65					70					75				80	
Cys	Ser	Pro	Ser	Thr	Pro	Thr	Met	Asn	Ser	Tyr	Phe	Tyr	Lys	Phe	Met
			85						90					95	
Ile	Asn	Leu	Leu	Lys	Arg	Phe	Ser	Ser	Glu	Arg	Lys	Leu	Leu	Glu	Val
		100						105					110		
Arg	Gly	Pro	Phe	Ile	Ile	Arg	Gln	Leu	Cys	Leu	Leu	Leu	Asn	Ala	Glu
		115					120					125			
Asn	Ile	Phe	His	Ser	Met	Ala	Asp	Ile	Leu	Leu	Arg	Glu	Glu	Asp	Leu
	130					135					140				
Lys	Phe	Ala	Ser	Thr	Met	Val	His	Ala	Leu	Asn	Thr	Ile	Leu	Leu	Thr
145					150					155				160	
Ser	Thr	Glu	Leu	Phe	Gln	Leu	Arg	Asn	Gln	Leu	Lys	Asp	Leu	Lys	Thr
			165						170					175	
Leu	Glu	Ser	Gln	Asn	Leu	Phe	Cys	Cys	Leu	Tyr	Arg	Ser	Trp	Cys	His
		180						185					190		
Asn	Pro	Val	Thr	Thr	Val	Ser	Leu	Cys	Phe	Leu	Thr	Gln	Asn	Tyr	Arg
	195					200						205			
His	Ala	Tyr	Asp	Leu	Ile	Gln	Lys	Phe	Gly	Asp	Leu	Glu	Val	Thr	Val
	210					215					220				
Asp	Phe	Leu	Ala	Glu	Val	Asp	Lys	Leu	Val	Gln	Leu	Ile	Glu	Cys	Pro
225					230					235				240	
Ile	Phe	Thr	Tyr	Leu	Arg	Leu	Gln	Leu	Leu	Asp	Val	Lys	Asn	Asn	Pro
			245						250					255	
Tyr	Leu	Ile	Lys	Ala	Leu	Tyr	Gly	Leu	Leu	Met	Leu	Leu	Pro	Gln	Ser
		260						265					270		
Ser	Ala	Phe	Gln	Leu	Leu	Ser	His	Arg	Leu	Gln	Cys	Val	Pro	Asn	Pro

275	280	285
Glu Leu Leu Gln Thr Glu Asp Ser Leu Lys Ala Ala Pro Lys Ser Gln		
290	295	300
Lys Ala Asp Ser Pro Ser Ile Asp Tyr Ala Glu Leu Leu Gln His Phe		
305	310	315
Glu Lys Val Gln Asn Lys His Leu Glu Val Arg His Gln Arg Ser Gly		
325	330	335
Arg Gly Asp His Leu Asp Arg Arg Val Val Leu		
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<210> 4665
 <211> 1043
 <212> DNA
 <213> Homo sapiens

<400> 4665
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 180
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 240
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 420
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 480
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 660
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 1043

<210> 4666

<211> 167
 <212> PRT
 <213> Homo sapiens

<400> 4666

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      20           25           30
Arg Glu Phe Trp Ser Arg Phe Arg Lys Glu Lys Glu Pro Val Val Val
      35           40           45
Glu Thr Val Glu Glu Lys Lys Glu Pro Ile Leu Val Cys Pro Pro Leu
      50           55           60
Arg Ser Arg Ala Tyr Thr Pro Pro Glu Asp Leu Gln Ser Arg Leu Glu
65           70           75           80
Ser Tyr Val Lys Glu Val Phe Gly Ser Ser Leu Pro Ser Asn Trp Gln
      85           90           95
Asp Ile Ser Leu Glu Asp Ser Arg Leu Lys Phe Asn Leu Leu Ala His
      100          105          110
Leu Ala Asp Asp Leu Gly His Val Val Pro Asn Ser Arg Leu His Gln
      115          120          125
Met Cys Arg Val Arg Asp Val Leu Asp Phe Tyr Asn Val Pro Ile Gln
      130          135          140
Asp Arg Ser Lys Phe Asp Glu Leu Ser Ala Ser Asn Leu Pro Pro Asn
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<210> 4667
 <211> 1031
 <212> DNA
 <213> Homo sapiens

<400> 4667

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 <212> PRT
 <213> Homo sapiens

<400> 4668
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 35 40 45
 Ser Cys Phe Ala Met Thr Glu Pro Gln Val Ala Ser Ser Asp Ala Thr
 50 55 60
 Asn Ile Glu Ala Ser Ile Arg Glu Glu Asp Ser Phe Tyr Val Ile Asn
 65 70 75 80
 Gly His Lys Trp Trp Ile Thr Gly Ile Leu Asp Pro Arg Cys Gln Leu
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 Cys Val Phe Met Gly Lys Thr Asp Pro His Ala Pro Arg His Arg Gln
 100 105 110
 Gln Ser Val Leu Leu Val Pro Met Asp Thr Pro Gly Ile Lys Ile Ile
 115 120 125
 Arg Pro Leu Thr Val Tyr Gly Leu Glu Asp Ala Pro Gly Gly His Gly
 130 135 140
 Glu Val Arg Phe Glu His Val Arg Val Pro Lys Glu Asn Met Val Leu
 145 150 155 160
 Gly Pro Gly Arg Gly Phe Glu Ile Ala Gln Gly Arg Leu Gly Pro Gly
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 Thr Cys Val Gln Ala Gly Phe Gln Asp Met Asn Ile Lys Lys Gln Ile
 35 40 45
 Gln Glu Gln His Gln Ala Ala Ile Ile Ile Gln Lys His Cys Lys Ala
 50 55 60
 Phe Lys Ile Arg Lys His Tyr Leu His Ile Arg Ala Thr Val Val Ser
 65 70 75 80
 Ile Gln Arg Arg Tyr Arg Lys Leu Thr Ala Val Arg Thr Gln Ala Val
 85 90 95
 Ile Cys Ile Gln Ser Tyr Tyr Arg Gly Phe Lys Val Arg Lys Asp Ile
 100 105 110
 Gln Asn Met His Arg Ala Ala Thr Leu Ile Gln Ser Phe Tyr Arg Met
 115 120 125
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<210> 4671
 <211> 657

<212> DNA
 <213> Homo sapiens

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 <211> 152
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 <213> Homo sapiens

<400> 4672
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 Lys Leu Met Leu Asp His Met Thr Asn Thr Thr Asn Ala Ser His Val
 35 40 45
 Pro Val Gln Pro Gly Ser Ser Val Val Met Met Val Asn Asn Leu Gly
 50 55 60
 Gly Leu Ser Phe Leu Glu Leu Gly Ile Ile Ala Asp Ala Thr Val Arg
 65 70 75 80
 Ser Leu Glu Gly Arg Gly Val Lys Ile Ala Arg Ala Leu Val Gly Thr
 85 90 95
 Phe Met Ser Ala Leu Glu Met Pro Gly Ile Ser Leu Thr Leu Leu
 100 105 110
 Val Asp Glu Pro Leu Leu Lys Leu Ile Asp Ala Glu Thr Thr Ala Ala
 115 120 125
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 130 135 140
 Leu Ser Trp Ala Trp Arg Asn Thr
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<210> 4673
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<213> Homo sapiens

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<210> 4674

<211> 402
 <212> PRT
 <213> Homo sapiens

<400> 4674

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      35           40           45
Gly Pro Arg Asn Glu Asp Leu Ser Leu Asp Tyr Ala Ser Gln Pro Ala
      50           55           60
Asn Leu Gln Phe Pro His Ile Met Pro Leu Ala Glu Asp Ile Lys Gly
65           70           75           80
Ser Cys Phe Gln Ser Gly Asn Lys Arg Asn His Glu Pro Phe Ile Ala
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Pro Glu Arg Phe Gly Asn Ser Ser Val Gly Phe Gly Ser Asn Ser His
      100          105          110
Ser Gln Ala Pro Glu Lys Val Thr Leu Leu Val Asp Gly Thr Arg Phe
      115          120          125
Val Val Asn Pro Gln Ile Phe Thr Ala His Pro Asp Thr Met Leu Gly
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Arg Met Phe Gly Pro Gly Arg Glu Tyr Asn Phe Thr Arg Pro Asn Glu
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Lys Gly Glu Tyr Glu Ile Ala Glu Gly Ile Ser Ala Thr Val Phe Arg
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Thr Val Leu Asp Tyr Tyr Lys Thr Gly Ile Ile Asn Cys Pro Asp Gly
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Ile Ser Ile Pro Asp Leu Arg Asp Thr Cys Asp Tyr Leu Cys Ile Asn
      195          200          205
Phe Asp Phe Asn Thr Ile Arg Cys Gln Asp Leu Ser Ala Leu Leu His
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Glu Leu Ser Asn Asp Gly Ala His Lys Gln Phe Asp His Tyr Leu Glu
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Glu Leu Ile Leu Pro Ile Met Val Gly Cys Ala Lys Lys Gly Glu Arg
      245          250          255
Glu Cys His Ile Val Val Leu Thr Asp Glu Asp Ser Val Asp Trp Asp
      260          265          270
Glu Asp His Pro Pro Pro Met Gly Glu Glu Tyr Ser Gln Ile Leu Tyr
      275          280          285
Ser Ser Lys Leu Tyr Arg Phe Phe Lys Tyr Ile Glu Asn Arg Asp Val
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Ala Lys Thr Val Leu Lys Glu Arg Gly Leu Lys Asn Ile Arg Ile Gly
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Ile Glu Gly Tyr Pro Thr Cys Lys Glu Lys Ile Lys Arg Arg Pro Gly
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Gly Arg Ser Glu Val Ile Tyr Asn Tyr Val Gln Arg Pro Phe Ile Gln
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Met Ser Trp Glu Lys Glu Glu Gly Lys Ser Arg His Val Asp Phe Gln
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Cys Val Arg Ser Lys Ser Leu Thr Asn Leu Val Ala Ala Gly Asp Asp
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385

390

395

400

Glu Leu

<210> 4675

<211> 2868

<212> DNA

<213> Homo sapiens

<400> 4675

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<210> 4676

<211> 641
 <212> PRT
 <213> Homo sapiens

<400> 4676

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Glu	Phe	Asn	Pro	Ser	Ser	Ser	Gly	Arg	Ser	Ala	Arg	Thr	Val	Ser	Ser
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Cys	Pro	Gly	Ser	Asp	Glu	Gly	Phe	Thr	Arg	Lys	Lys	Cys	Thr	Ile	Gly
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Met	Val	Gly	Glu	Gly	Ser	Ile	Gln	Ser	Ser	Arg	Tyr	Lys	Lys	Glu	Ser
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Val	Asp	Ile	Asn	Ile	Gln	Asn	Lys	Lys	Leu	Glu	Ser	Leu	Leu	Gln	Ser
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Met	Glu	Met	Ala	His	Ser	Gly	Ser	Leu	Arg	Asp	Glu	Leu	Cys	Leu	Asp
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Phe	Pro	Cys	Asp	Ser	Pro	Glu	Lys	Ser	Leu	Thr	Leu	Asn	Pro	Pro	Leu
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 405 410 415
 Asp Leu Phe Asp Glu Ile Val Thr Ala Thr Thr Thr Glu Ser Gly Asp
 420 425 430
 Leu Glu Leu Val His Ser Thr Pro Gly Ala Asn Val Leu Glu Leu Leu
 435 440 445
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 450 455 460
 Val Gln Thr Asp Val Val Pro Tyr Ser Pro Ala Ile Ser Glu Leu Ile
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 485 490 495
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 530 535 540
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 580 585 590
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<210> 4677

<211> 940

<212> DNA

<213> Homo sapiens

<400> 4677

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<210> 4678

<211> 133

<212> PRT

<213> Homo sapiens

<400> 4678

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			20					25					30		
Arg	Thr	Val	Phe	Ile	Trp	Phe	Val	Gly	Gln	Leu	Leu	Gly	Gly	Glu	Leu
	35					40						45			
Lys	Gly	Tyr	Ser	Lys	Thr	Asn	Thr	Thr	Ser	Ser	Arg	Pro	Ala	Ser	Ser
	50				55						60				
Arg	Gly	Ser	Leu	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Leu	Thr	Lys
65				70				75						80	
Asp	Ala	Leu	Pro	Ser	Ser	Leu	Lys	Ser	Asp	Ser	Thr	Thr	Ile	Thr	Ser
			85					90					95		
Gly	Leu	Val	Phe	Pro	Phe	Arg	Ser	Leu	Cys	Val	Asn	Pro	Ala	Lys	Ser
		100					105					110			
Ser	Val	Ser	Glu	Ser	Val	Ser	Ser	Ile	Lys	Ile	Leu	Leu	Ser	Ser	Ser
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<210> 4679

<211> 2284

<212> DNA

<213> Homo sapiens

<400> 4679

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<211> 112

<212> PRT

<213> Homo sapiens

<400> 4680

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Thr	Ser	Phe	His	Arg	Gly	Thr	Cys	Leu	Glu	Phe	Trp	His	Arg	Gly	Leu
			20					25					30		
Thr	Glu	His	Ser	Ser	Asp	Ile	Phe	Leu	Gln	Leu	Glu	Met	Leu	Cys	Trp
		35				40					45				
Ser	Pro	Cys	Ser	Leu	Thr	Phe	Ser	Arg	Ala	Ile	Lys	Ala	Thr	Ser	Ser
	50					55					60				
Ile	Ala	Gly	Pro	Gln	Thr	Phe	Gln	Gly	Lys	His	Cys	Phe	Thr	Ser	Cys
65				70					75					80	
Arg	Gln	Leu	Ile	Ser	Gln	Lys	Pro	Leu	Gln	Lys	Pro	Val	Leu	Pro	Gly
			85					90					95		
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<210> 4681

<211> 906

<212> DNA

<213> Homo sapiens

<400> 4681

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<210> 4682
 <211> 153
 <212> PRT
 <213> Homo sapiens

<400> 4682
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 35 40 45
 Pro Phe Ser Phe Phe Pro Ser Cys Thr His Leu Glu Asn Phe Thr Phe
 50 55 60
 Leu Glu Ser Pro Gln Asn Asn Thr Lys Val Ile Val Gly Ala Thr Gly
 65 70 75 80
 Phe Met Leu Tyr Cys Gly Ala Arg Gly Lys Thr Cys Leu Tyr Ala Gly
 85 90 95
 Asn Thr His Asn His Ser Phe Arg Phe Val Cys Leu Met Val Ile Cys
 100 105 110
 His Lys Arg Asp Leu Gln Lys Gln Gly Ala Leu Val Asn Val Gln Tyr
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<210> 4683

<211> 3246

<212> DNA

<213> Homo sapiens

<400> 4683

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<210> 4684
 <211> 385
 <212> PRT
 <213> Homo sapiens

<400> 4684
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 35 40 45
 Gln Thr His Gly Thr Ala Arg Ile Gly Thr His Asn Gly Thr Phe His
 50 55 60
 Cys Asp Glu Ala Leu Ala Cys Ala Leu Leu Arg Leu Leu Pro Glu Tyr
 65 70 75 80
 Arg Asp Ala Glu Ile Val Arg Thr Arg Asp Pro Glu Lys Leu Ala Ser
 85 90 95
 Cys Asp Ile Val Val Asp Val Gly Gly Glu Tyr Asp Pro Arg Arg His
 100 105 110
 Arg Tyr Asp His His Gln Arg Ser Phe Thr Glu Thr Met Ser Ser Leu
 115 120 125
 Ser Pro Gly Lys Pro Trp Gln Thr Lys Leu Ser Ser Ala Gly Leu Ile
 130 135 140
 Tyr Leu His Phe Gly His Lys Leu Leu Ala Gln Leu Leu Gly Thr Ser
 145 150 155 160
 Glu Glu Asp Ser Met Val Gly Thr Leu Tyr Asp Lys Met Tyr Glu Asn
 165 170 175
 Phe Val Glu Glu Val Asp Ala Val Asp Asn Gly Ile Ser Gln Trp Ala
 180 185 190
 Glu Gly Glu Pro Arg Tyr Ala Leu Thr Thr Thr Leu Ser Ala Arg Val
 195 200 205
 Ala Arg Leu Asn Pro Thr Trp Asn His Pro Asp Gln Asp Thr Glu Ala
 210 215 220
 Gly Phe Lys Arg Ala Met Asp Leu Val Gln Glu Glu Phe Leu Gln Arg
 225 230 235 240
 Leu Asp Phe Tyr Gln His Ser Trp Leu Pro Ala Arg Ala Leu Val Glu
 245 250 255
 Glu Ala Leu Ala Gln Arg Phe Gln Val Asp Pro Ser Gly Glu Ile Val
 260 265 270
 Glu Leu Ala Lys Gly Ala Cys Pro Trp Lys Glu His Leu Tyr His Leu
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 Glu Ser Gly Leu Ser Pro Pro Val Ala Ile Phe Phe Val Ile Tyr Thr
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<400> 4686															
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			20					25					30		
Ser	Gly	Leu	Ser	Leu	Gln	Glu	Ala	Gln	Gln	Ile	Leu	Asn	Val	Ser	Lys
		35					40					45			
Leu	Ser	Pro	Glu	Glu	Val	Gln	Lys	Asn	Tyr	Glu	His	Leu	Phe	Lys	Val

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Asp Arg Glu Lys Gly Gln Met Pro His Thr
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<210> 4687
 <211> 309
 <212> DNA
 <213> Homo sapiens

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<400> 4687
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309

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<210> 4688
 <211> 90
 <212> PRT
 <213> Homo sapiens

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<400> 4688
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Pro Leu Trp Val Ala Leu Met Ser Ala Leu Ile Leu Gly Leu Leu Phe
      35              40              45
Val Ala Val Tyr Ser Leu Ser His Gly Glu Val Ser Tyr Asp Pro Leu
      50              55              60
Tyr Ala Gly Phe Ala Val Phe Ala Phe Thr Ser Gly Gly Asp Leu Ile
65              70              75              80
Ile Ala Leu Gln Glu Asp Ser Tyr Gly Gly
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<210> 4689
 <211> 898
 <212> DNA
 <213> Homo sapiens

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<210> 4690

<211> 299

<212> PRT

<213> Homo sapiens

<400> 4690

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Ala	Leu	Ser	Leu	Arg	Trp	Arg	Trp	Arg	Thr	Pro	Asp	Cys	Pro	Pro	Ala
			20					25					30		
Ser	Ala	Pro	Glu	Asp	Leu	Met	Phe	Leu	Leu	Asp	Ser	Ser	Ala	Ser	Val
		35					40					45			
Ser	His	Tyr	Glu	Phe	Ser	Arg	Val	Arg	Glu	Phe	Val	Gly	Gln	Leu	Val
	50					55					60				
Ala	Pro	Leu	Pro	Leu	Ala	Pro	Xaa	Ala	Leu	Arg	Ala	Ser	Leu	Val	His
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Val	Gly	Ser	Arg	Pro	Tyr	Thr	Glu	Phe	Pro	Phe	Gly	Gln	His	Ser	Ser
			85					90					95		
Gly	Glu	Ala	Ala	Gln	Asp	Ala	Val	Arg	Ala	Ser	Ala	Gln	Arg	Met	Gly
			100				105					110			
Asp	Thr	His	Thr	Gly	Leu	Ala	Leu	Val	Tyr	Ala	Lys	Glu	Gln	Leu	Phe
		115				120					125				
Ala	Glu	Ala	Ser	Gly	Ala	Arg	Pro	Gly	Val	Pro	Lys	Val	Leu	Val	Trp
	130					135					140				
Val	Thr	Asp	Gly	Gly	Ser	Ser	Asp	Pro	Val	Gly	Pro	Pro	Met	Gln	Glu

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				165					170					175
Asn	Phe	Leu	Glu	Leu	Ser	Ala	Ala	Ala	Ser	Ala	Pro	Ala	Glu	Lys
			180					185					190	
Leu	His	Phe	Val	Asp	Val	Asp	Asp	Leu	His	Ile	Ile	Val	Gln	Glu
	195					200						205		
Arg	Gly	Ser	Ile	Leu	Asp	Ala	Met	Arg	Pro	Gln	Gln	Leu	His	Ala
	210					215					220			
Glu	Ile	Thr	Ser	Ser	Gly	Phe	Arg	Leu	Ala	Trp	Pro	Pro	Leu	Leu
225					230				235					240
Ala	Asp	Ser	Gly	Tyr	Tyr	Val	Leu	Glu	Leu	Val	Pro	Ser	Ala	Gln
			245					250						255
Gly	Ala	Ala	Arg	Arg	Gln	Gln	Leu	Pro	Gly	Asn	Ala	Thr	Asp	Trp
			260				265						270	
Trp	Ala	Gly	Leu	Asp	Pro	Asp	Thr	Asp	Tyr	Asp	Val	Ala	Leu	Val
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 <211> 2375
 <212> DNA
 <213> Homo sapiens

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<210> 4692

<211> 383
 <212> PRT
 <213> Homo sapiens

<400> 4692

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			20					25					30		
Phe	Leu	Phe	His	Ala	Ile	Asn	Lys	Pro	Asn	Ala	Pro	Ile	Trp	Leu	Ile
		35					40					45			
Leu	Asn	Glu	Ala	Gly	Leu	Tyr	Trp	Arg	Ala	Val	Gly	Asn	Ser	Thr	Phe
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Gln	Asp	Val	Pro	Leu	Val	Asn	Leu	Ala	Asn	Leu	Leu	Ile	His	Tyr	Gly
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Leu	His	Leu	Asp	Ala	Thr	Lys	Leu	Leu	Leu	Gln	Ala	Leu	Ala	Ile	Asn
			100					105					110		
Ser	Ser	Glu	Pro	Leu	Thr	Phe	Leu	Ser	Leu	Gly	Asn	Ala	Tyr	Leu	Ala
		115					120					125			
Leu	Lys	Asn	Ile	Ser	Gly	Ala	Leu	Glu	Ala	Phe	Arg	Gln	Ala	Leu	Lys
	130					135					140				
Leu	Thr	Thr	Lys	Cys	Pro	Glu	Cys	Glu	Asn	Ser	Leu	Lys	Leu	Ile	Arg
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Cys	Met	Gln	Phe	Tyr	Pro	Phe	Leu	Tyr	Asn	Ile	Thr	Ser	Ser	Val	Cys
			165						170					175	
Ser	Gly	Asn	Cys	His	Glu	Lys	Thr	Leu	Asp	Asn	Ser	His	Asp	Lys	Gln
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Lys	Tyr	Phe	Asp	Asn	Ser	Gln	Ser	Leu	Asp	Ala	Ala	Glu	Glu	Glu	Pro
	195						200					205			
Ser	Glu	Arg	Gly	Thr	Glu	Glu	Asp	Pro	Val	Phe	Ser	Val	Glu	Asn	Ser
	210					215					220				
Gly	Arg	Asp	Ser	Asp	Ala	Leu	Arg	Leu	Glu	Ser	Thr	Val	Val	Glu	Glu
225					230					235				240	
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			245						250					255	
Glu	Glu	Ile	Leu	Ala	Leu	Val	Asp	Glu	Phe	Gln	Gln	Ala	Trp	Pro	Leu
		260						265					270		
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	275						280					285			
Gln	Gly	Ile	Arg	Val	Leu	Lys	Lys	Gly	Pro	Gln	Asp	Gly	Val	Ala	Arg
	290					295					300				
Ser	Ser	Cys	Tyr	Gly	Asp	Cys	Arg	Ser	Glu	Asp	Asp	Glu	Ala	Thr	Glu
305					310					315				320	
Trp	Ile	Thr	Phe	Gln	Val	Lys	Arg	Val	Lys	Lys	Pro	Lys	Gly	Asp	His
			325						330					335	
Lys	Lys	Thr	Pro	Gly	Lys	Lys	Val	Glu	Thr	Gly	Gln	Ile	Glu	Asn	Gly
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 <212> DNA
 <213> Homo sapiens

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<210> 4694
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 4694
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 20 25 30
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 35 40 45
 Lys Gly Phe Leu Ala Gly Tyr Val Val Ala Lys Leu Arg Ala Ser Ala
 50 55 60
 Val Leu Gly Phe Ala Val Gly Thr Cys Thr Gly Ile Tyr Ala Ala Gln
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<210> 4695

<211> 2209

<212> DNA

<213> Homo sapiens

<400> 4695

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<210> 4696

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4696

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Leu	Glu	Met	Pro	Gly	Ile	Ser	Leu	Thr	Leu	Leu	Leu	Val	Asp	Glu	Pro
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Leu	Leu	Lys	Leu	Ile	Asp	Ala	Glu	Thr	Thr	Ala	Ala	Ala	Trp	Pro	Asn
		50			55					60					
Val	Ala	Ala	Val	Ser	Ile	Thr	Gly	Arg	Lys	Arg	Ser	Arg	Val	Ala	Pro
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Ala	Glu	Pro	Gln	Glu	Ala	Pro	Asp	Ser	Thr	Ala	Ala	Xaa	Glu	Ala	Gln
			85					90					95		
Pro	Arg	Ser	Xaa	Met	Ala	Leu	Val	Leu	Glu	Arg	Val	Cys	Ser	Thr	Leu
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Leu	Gly	Leu	Glu	Glu	His	Leu	Asn	Ala	Leu	Asp	Arg	Ala	Ala	Gly	Asp
		115					120				125				
Gly	Asp	Cys	Gly	Thr	Thr	His	Ser	Arg	Ala	Ala	Arg	Ala	Ile	Gln	Glu
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Trp	Leu	Lys	Glu	Gly	Pro	Pro	Pro	Ala	Ser	Pro	Ala	Gln	Leu	Leu	Ser

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Lys	Leu	Ser	Val	Leu	Leu	Glu	Lys	Met	Gly	Gly	Ser	Ser	Gly	Ala	
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Leu	Tyr	Gly	Leu	Phe	Leu	Thr	Ala	Ala	Ala	Gln	Pro	Leu	Lys	Ala	Lys
		180		185		190									
Thr	Ser	Leu	Pro	Ala	Trp	Ser	Ala	Ala	Met	Asp	Ala	Gly	Leu	Glu	Ala
		195		200		205									
Met	Gln	Lys	Tyr	Gly	Lys	Ala	Ala	Pro	Gly	Asp	Arg	Thr	Met	Leu	Asp
		210		215		220									
Ser	Leu	Trp	Ala	Ala	Glu	Gln	Glu	Leu	Gln	Ala	Trp	Lys	Ser	Pro	Gly
225				230		235									240
Ala	Asp	Leu	Leu	Gln	Val	Leu	Thr	Lys	Ala	Val	Lys	Ser	Ala	Glu	Ala
		245		250		255									
Ala	Ala	Glu	Ala	Thr	Lys	Asn	Met	Glu	Ala	Gly	Ala	Gly	Arg	Ala	Ser
		260		265		270									
Tyr	Ile	Ser	Ser	Ala	Arg	Leu	Glu	Gln	Pro	Asp	Pro	Gly	Ala	Val	Ala
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<210> 4697

<211> 1047

<212> DNA

<213> Homo sapiens

<400> 4697

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 840

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<210> 4698
 <211> 182
 <212> PRT
 <213> Homo sapiens

<400> 4698
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 35 40 45
 Pro Ser Cys Leu Pro Gly Ile Ser Ile Asn Ser Glu Gln Leu Thr Arg
 50 55 60
 Ala Gln Cys Val Thr Val Lys Glu Lys Leu Leu Glu Gln Ala Glu Ser
 65 70 75 80
 Leu Leu Ser Glu Pro Met Val His Glu Leu Val Leu Trp Ile Gln Gln
 85 90 95
 Asn Leu Arg His Ile Leu Ser Gln Pro Glu Thr Gly Ser Gly Ser Glu
 100 105 110
 Lys Cys Thr Phe Ser Thr Ser Thr Met Asp Asp Gly Leu Trp Ile
 115 120 125
 Thr Leu Leu His Leu Asp His Met Arg Ala Lys Thr Lys Tyr Val Lys
 130 135 140
 Ile Val Glu Lys Trp Ala Ser Asp Leu Arg Leu Thr Gly Arg Leu Met
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 <212> DNA
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<400> 4699
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<210> 4700

<211> 116

<212> PRT

<213> Homo sapiens

<400> 4700

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<400> 4702
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      20             25             30
His Xaa Pro Pro Gly His Phe Phe Leu Glu Thr Arg Ser Tyr Ser Leu
      35             40             45
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Pro Pro Gly Leu Lys
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<210> 4703

<211> 513

<212> DNA

<213> Homo sapiens

<400> 4703

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<210> 4704

<211> 112

<212> PRT

<213> Homo sapiens

<400> 4704

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Met Ala Ala Pro Glu Gln Pro Leu Ala Ile Ser Arg Gly Cys Thr Ser
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      20             25             30
His Leu Pro Ala Glu Leu Thr Ala Glu Glu Lys Glu Asp Leu Leu Lys
      35             40             45
Tyr Phe Gly Ala Gln Ser Val Arg Val Leu Ser Asp Lys Gly Arg Leu
      50             55             60
Lys His Thr Ala Phe Ala Thr Phe Pro Asn Glu Lys Ala Ala Ile Lys
      65             70             75             80
Ala Leu Thr Arg Leu His Gln Leu Lys Leu Leu Gly His Thr Leu Val
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105

110

<210> 4705

<211> 569

<212> DNA

<213> Homo sapiens

<400> 4705

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<210> 4706

<211> 154

<212> PRT

<213> Homo sapiens

<400> 4706

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		20					25					30			
Thr	Glu	Leu	Arg	Glu	Tyr	Phe	Lys	Lys	Phe	Gly	Val	Val	Thr	Glu	Val
	35					40					45				
Val	Met	Ile	Tyr	Asp	Ala	Glu	Lys	Gln	Arg	Pro	Arg	Gly	Lys	Gly	Arg
	50				55				60						
Ser	Ser	Leu	Thr	Ser	Ala	Phe	Ser	Leu	Leu	Leu	Pro	Gln	Met	Ala	Asn
65				70					75					80	
Tyr	Leu	Thr	Arg	Gln	Ala	His	Thr	Gly	Gly	Cys	Ser	Lys	Gln	Pro	
		85					90					95			
Gln	Glu	Gly	Thr	Ile	Trp	Arg	Gln	Met	Thr	Lys	Thr	Trp	Ala	Pro	His
	100						105					110			
Val	His	Pro	Ile	Gln	Pro	Val	Cys	Ala	Ser	Arg	Gly	Gln	Thr	Ser	His
	115					120					125				
Ile	Val	Phe	Trp	Leu	Val	Leu	Leu	Lys	Phe	Leu	Arg	Leu	Val	Met	Ser
	130				135						140				
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145

150

<210> 4707

<211> 748

<212> DNA

<213> Homo sapiens

<400> 4707

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 480
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<210> 4708

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4708

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Ser	Ser	Ser	Leu	Ser	Pro	Pro	Arg	Gly	Asp	Arg	Thr	Leu	Leu	Val	Arg
			20					25					30		
His	Leu	Pro	Ala	Glu	Leu	Thr	Ala	Glu	Glu	Lys	Glu	Asp	Leu	Leu	Lys
		35					40					45			
Tyr	Phe	Gly	Ala	Gln	Ser	Val	Arg	Val	Leu	Ser	Asp	Lys	Gly	Arg	Leu
	50					55					60				
Lys	His	Thr	Ala	Phe	Ala	Thr	Phe	Pro	Asn	Glu	Lys	Ala	Ala	Ile	Lys
65				70					75					80	
Ala	Leu	Thr	Arg	Leu	His	Gln	Leu	Lys	Leu	Leu	Gly	His	Thr	Leu	Val
			85					90					95		
Val	Glu	Phe	Ala	Lys	Glu	Gln	Asp	Arg	Val	His	Ser	Pro	Cys	Pro	Thr

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 <212> DNA
 <213> Homo sapiens

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1351

<210> 4710

<211> 304

<212> PRT

<213> Homo sapiens

<400> 4710

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Leu	Asp	Trp	Ser	Thr	Thr	Gln	Glu	Thr	Leu	Arg	Ser	Tyr	Phe	Ser	Gln
			20					25					30		
Tyr	Gly	Glu	Val	Val	Asp	Cys	Val	Ile	Met	Lys	Asp	Lys	Thr	Thr	Asn
		35				40						45			
Gln	Ser	Arg	Gly	Phe	Gly	Phe	Val	Lys	Phe	Lys	Asp	Pro	Asn	Cys	Val
		50				55					60				
Gly	Thr	Val	Leu	Ala	Ser	Arg	Pro	His	Thr	Leu	Asp	Gly	Arg	Asn	Ile
65					70				75					80	
Asp	Pro	Lys	Pro	Cys	Thr	Pro	Arg	Gly	Met	Gln	Pro	Glu	Arg	Thr	Arg
			85					90						95	
Pro	Lys	Glu	Gly	Trp	Gln	Lys	Gly	Pro	Arg	Ser	Asp	Asn	Ser	Lys	Ser
		100						105					110		
Asn	Lys	Ile	Phe	Val	Gly	Gly	Ile	Pro	His	Asn	Cys	Gly	Glu	Thr	Glu
		115					120					125			
Leu	Arg	Glu	Tyr	Phe	Lys	Lys	Phe	Gly	Val	Val	Thr	Glu	Val	Val	Met
	130					135					140				
Ile	Tyr	Asp	Ala	Glu	Lys	Gln	Arg	Pro	Arg	Gly	Phe	Gly	Phe	Ile	Thr
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Phe	Glu	Asp	Glu	Gln	Ser	Val	Asp	Gln	Ala	Val	Asn	Met	His	Phe	His
				165				170					175		
Asp	Ile	Met	Gly	Lys	Lys	Val	Glu	Val	Lys	Arg	Ala	Glu	Pro	Arg	Asp
		180					185						190		
Ser	Lys	Ser	Gln	Ala	Pro	Gly	Gln	Pro	Gly	Ala	Ser	Gln	Trp	Gly	Ser
	195					200						205			
Arg	Val	Val	Pro	Asn	Ala	Ala	Asn	Gly	Trp	Ala	Gly	Gln	Pro	Pro	Pro
	210					215					220				
Thr	Trp	Gln	Gln	Gly	Tyr	Gly	Pro	Gln	Gly	Met	Trp	Val	Pro	Ala	Gly
225					230					235				240	
Gln	Ala	Ile	Gly	Gly	Tyr	Gly	Pro	Pro	Pro	Ala	Gly	Arg	Gly	Ala	Pro
			245						250				255		
Pro	Pro	Pro	Pro	Pro	Phe	Thr	Ser	Tyr	Ile	Val	Ser	Thr	Pro	Pro	Gly
		260						265					270		
Gly	Phe	Pro	Pro	Pro	Gln	Gly	Phe	Pro	Gln	Gly	Tyr	Gly	Ala	Pro	Pro
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<211> 2061

<212> DNA

<213> Homo sapiens

<400> 4711

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<211> 187

<212> PRT

<213> Homo sapiens

<400> 4712

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Leu	Gln	Met	Asp	Val	Met	Pro	Gly	Glu	Gly	Asp	Leu	Pro	Gln	Met	Glu
			20					25					30		
Val	Gly	Ser	Gly	Ser	Arg	Glu	Leu	Ser	Leu	Arg	Pro	Ser	Arg	Ser	Gly
			35				40					45			
Ala	Gln	Gln	Leu	Glu	Glu	Glu	Gly	Pro	Met	Glu	Glu	Glu	Glu	Ala	Gln
			50			55				60					
Pro	Met	Ala	Ala	Pro	Glu	Gly	Lys	Arg	Ser	Leu	Ala	Asn	Gly	Pro	Asn
65				70					75					80	
Ala	Gly	Glu	Gln	Pro	Gly	Gln	Val	Ala	Gly	Ala	Asp	Phe	Glu	Ser	Glu
			85					90					95		
Asp	Glu	Gly	Glu	Glu	Phe	Asp	Asp	Trp	Glu	Asp	Asp	Tyr	Asp	Tyr	Pro
			100					105					110		
Glu	Glu	Glu	Gln	Leu	Ser	Gly	Ala	Gly	Tyr	Arg	Val	Ser	Ala	Ala	Leu
			115				120					125			
Glu	Glu	Ala	Asp	Lys	Met	Phe	Leu	Arg	Thr	Arg	Glu	Pro	Ala	Leu	Asp
			130			135					140				
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145				150					155					160	
Phe	Ile	Glu	Glu	Leu	Phe	Ser	Leu	Met	Val	Val	Asn	Arg	Leu	Thr	Glu
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<210> 4713

<211> 1324

<212> DNA

<213> Homo sapiens

<400> 4713

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1324

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<212> PRT
<213> Homo sapiens

<400> 4714
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Val Gln Val Val Gly Arg Ala Phe Ala Arg Ala Leu Arg Gln Glu Phe
      35           40           45
Ala Ala Ser Arg Ala Ala Ala Asp Ala Arg Gly Arg Ala Gly His Arg
      50           55           60
Ser Ala Ala Ala Ser Asn Leu Ser Gly Leu Ser Leu Gln Glu Ala Gln
      65           70           75           80
Gln Ile Leu Asn Val Ser Lys Leu Ser Pro Glu Glu Val Gln Lys Asn
      85           90           95
Tyr Glu His Leu Phe Lys Val Asn Asp Lys Ser Val Gly Gly Ser Phe
      100          105          110
Tyr Leu Gln Ser Lys Val Val Arg Ala Lys Glu Arg Leu Asp Glu Glu
      115          120          125
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Thr
145

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<210> 4715
 <211> 2051
 <212> DNA
 <213> Homo sapiens

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<211> 239

<212> PRT

<213> Homo sapiens

<400> 4716

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			20					25					30		
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<210> 4717
<211> 2753
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<210> 4718

<211> 259

<212> PRT

<213> Homo sapiens

<400> 4718

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			20					25					30		
Asn	Leu	Asp	Ala	Phe	Asn	Glu	Arg	Asp	Pro	Tyr	Lys	Ala	Asp	Asp	Ser
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Thr	Phe	Pro	Leu	Glu	Arg	Asp	Glu	Val	Met	Pro	Pro	Pro	Leu	Gln	His
65					70					75				80	
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Tyr	Thr	Ser	Ile	Ala	Glu	Val	Gln	Ala	Gln	Met	Lys	Glu	Glu	Tyr	Leu
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Thr	Thr	Val	Leu	Gln	Ser	Met	Lys	Leu	Gly	Val	Asp	Val	Asn	Arg	His
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Lys His Phe

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250

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 <212> DNA
 <213> Homo sapiens

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<210> 4720
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 <213> Homo sapiens

<400> 4720
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 35 40 45
 Ile Arg Lys Asn Phe Asp Glu Ala Ala Lys Val Leu Lys Phe Asn Cys
 50 55 60
 Glu Glu Asn Gln His Ser Asp Ser Cys Tyr Lys Leu Gly Ala Tyr Tyr
 65 70 75 80
 Val Thr Gly Lys Gly Gly Leu Thr Gln Asp Leu Lys Ala Ala Ala Arg
 85 90 95
 Cys Phe Leu Met Ala Cys Glu Lys Pro Gly Lys Lys Ser Ile Ala Ala
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 Cys His Asn Val Gly Leu Leu Ala His Asp Gly Gln Val Asn Glu Asp
 115 120 125
 Gly Gln Pro Asp Leu Gly Lys Ala Arg Asp Tyr Tyr Thr Arg Ala Cys

130		135		140	
Asp Gly Gly Tyr Thr Ser Ser Cys Phe Asn Leu Ser Ala Met Phe Leu					
145		150		155	160
Gln Gly Ala Pro Gly Phe Pro Lys Asp Met Asp Leu Ala Cys Lys Tyr					
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Ser Met Lys Ala Cys Asp Leu Gly His Ile Trp Ala Cys Ala Asn Ala					
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Ser Arg Met Tyr					
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<210> 4721

<211> 1385

<212> DNA

<213> Homo sapiens

<400> 4721

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<400> 4722
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 35 40 45
 Leu Thr Gly Glu Ser Glu Ser Ser Ser Glu Asp Glu Phe Glu Lys Glu
 50 55 60
 Met Glu Ala Glu Leu Asn Ser Thr Met Lys Thr Met Glu Asp Lys Leu
 65 70 75 80
 Ser Ser Leu Gly Thr Gly Ser Ser Ser Gly Asn Gly Lys Val Ala Thr
 85 90 95
 Ala Pro Thr Arg Tyr Tyr Asp Asp Ile Tyr Phe Asp Ser Asp Ser Glu
 100 105 110
 Asp Glu Asp Arg Ala Val Gln Val Thr Lys Lys Lys Lys Lys Lys Gln
 115 120 125
 His Lys Ile Pro Thr Asn Asp Glu Leu Leu Tyr Asp Pro Glu Lys Asp
 130 135 140
 Asn Arg Asp Gln Ala Trp Val Asp Ala Gln Arg Arg Gly Tyr His Gly
 145 150 155 160
 Leu Gly Pro Gln Arg Ser Arg Gln Gln Gln Pro Val Pro Asn Ser Asp
 165 170 175
 Ala Val Leu Asn Cys Pro Ala Cys Met Thr Thr Leu Cys Leu Asp Cys
 180 185 190
 Gln Arg His Glu Ser Tyr Lys Thr Gln Tyr Arg Ala Met Phe Val Met
 195 200 205
 Asn Cys Ser Ile Asn Lys Glu Glu Val Leu Arg Tyr Lys Ala Ser Glu
 210 215 220
 Asn Arg Lys Lys Arg Arg Val His Lys Lys Met Arg Ser Asn Arg Glu
 225 230 235 240
 Asp Ala Ala Glu Lys Ala Glu Thr Asp Val Glu Glu Ile Tyr His Pro
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<210> 4723
<211> 1213
<212> DNA
<213> Homo sapiens

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<210> 4724
<211> 54
<212> PRT
<213> Homo sapiens

<400> 4724

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Phe Leu Pro Ala Gly Asp
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<210> 4725

<211> 366

<212> DNA

<213> Homo sapiens

<400> 4725

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<210> 4726

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4726

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          20           25           30
His Val His Val Tyr Ser Arg Leu Cys Ala Cys Ala Arg Val Tyr Met
          35           40           45
His Met Cys Thr Gly Ala Cys Ala Cys Val Asn Thr Cys Ser His Val
          50           55           60
Cys Thr Cys Xaa Ser Cys Pro Cys Xaa Tyr Val His Thr Cys Leu Cys
          65           70           75           80
Met His Ala Cys Ile Ala Val Cys Pro Tyr Pro His Val Arg Ile His
          85           90           95
Met Arg Leu Cys Leu His Leu Cys Met His Ala Ser Val Leu Leu Arg
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Ala Trp Val Cys Ile Cys Ala Cys Thr Arg
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<210> 4727
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<212> DNA
<213> Homo sapiens

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1440

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<210> 4728

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4728

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Ala	Glu	Gly	Arg	Val	Ala	Leu	Ala	Arg	Ala	Ala	Asp	Cys	Glu	Val	Glu
			20					25					30		
Gln	Trp	Asp	Ser	Asp	Glu	Pro	Ile	Pro	Ala	Lys	Glu	Leu	Glu	Arg	Gly
		35					40					45			
Val	Ala	Gly	Ala	His	Gly	Leu	Cys	Leu	Leu	Ser	Asp	His	Val	Asp	
	50					55				60					
Lys	Arg	Ile	Leu	Asp	Ala	Ala	Gly	Ala	Asn	Leu	Lys	Val	Ile	Ser	Thr
65					70				75					80	
Met	Ser	Val	Gly	Ile	Asp	His	Leu	Ala	Leu	Asp	Glu	Ile	Lys	Lys	Arg
				85				90						95	
Gly	Ile	Arg	Val	Gly	Tyr	Thr	Pro	Asp	Val	Leu	Thr	Asp	Thr	Thr	Ala
			100					105					110		
Glu	Leu	Ala	Val	Ser	Leu	Leu	Leu	Thr	Thr	Cys	Arg	Arg	Leu	Pro	Glu
		115					120					125			
Ala	Ile	Glu	Glu	Val	Lys	Asn	Gly	Gly	Trp	Thr	Ser	Trp	Lys	Pro	Leu
	130					135					140				
Trp	Leu	Cys	Gly	Tyr	Gly	Leu	Thr	Gln	Ser	Thr	Val	Gly	Ile	Ile	Gly
145					150				155					160	
Leu	Gly	Arg	Ile	Gly	Gln	Ala	Ile	Ala	Arg	Arg	Leu	Lys	Pro	Phe	Gly
			165					170						175	
Val	Gln	Arg	Phe	Leu	Tyr	Thr	Gly	Arg	Gln	Pro	Arg	Pro	Glu	Glu	Ala
		180					185						190		
Ala	Glu	Phe	Gln	Ala	Glu	Phe	Val	Ser	Thr	Pro	Glu	Leu	Ala	Ala	Gln
		195					200					205			
Ser	Asp	Phe	Ile	Val	Val	Ala	Cys	Ser	Leu	Thr	Pro	Ala	Thr	Glu	Gly

210	215	220
Leu Cys Asn Lys Asp Phe	Phe Gln Lys Met Lys	Glu Thr Ala Val Phe
225	230	235
Ile Asn Ile Ser Arg Gly	Asp Val Val Asn Gln	Asp Asp Leu Tyr Gln
245	250	255
Ala Leu Ala Ser Gly Lys	Ile Ala Ala Gly Leu	Asp Val Thr Ser
260	265	270
Pro Glu Pro Leu Pro Thr	Asn His Pro Leu Leu	Thr Leu Lys Asn Cys
275	280	285
Val Ile Leu Pro His Ile	Gly Ser Ala Thr His	Arg Thr Arg Asn Thr
290	295	300
Met Ser Leu Leu Ala Ala	Asn Asn Leu Leu Ala	Gly Leu Arg Gly Glu
305	310	315
Pro Met Pro Ser Glu Leu	Lys Leu	
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<210> 4729
 <211> 753
 <212> DNA
 <213> Homo sapiens

<400> 4729
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 120
 cctgttggtg gatttgggga aattttttgt ttgtttttta tgatttgtat ttgactgaga
 180
 gaaaccact gaagacgtct gcgtgagaat agagaccacc gaggccgact cgcgggccgc
 240
 tgcacccacc gccaaggaca aaaggagccc agcgtacta gctgcacccg attcctccca
 300
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 360
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 753

<210> 4730
 <211> 148
 <212> PRT
 <213> Homo sapiens

<400> 4730

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 20           25           30
Lys Gln Ala Ala Leu Lys Ser His Tyr Ala Asp Val Asp Pro Glu Asn
 35           40           45
Gln Asn Phe Leu Leu Glu Ser Asn Leu Gly Lys Lys Lys Tyr Glu Thr
 50           55           60
Glu Phe His Pro Gly Thr Thr Ser Phe Gly Met Ser Val Phe Asn Leu
 65           70           75           80
Ser Asn Ala Ile Val Gly Ser Gly Ile Leu Gly Leu Ser Tyr Ala Met
 85           90           95
Ala Asn Thr Gly Ile Ala Leu Phe Ile Ile Leu Leu Thr Phe Val Ser
 100          105          110
Ile Phe Ser Leu Tyr Ser Val His Leu Leu Leu Lys Thr Ala Asn Glu
 115          120          125
Gly Gly Ser Leu Leu Tyr Glu Gln Leu Gly Tyr Lys Ala Ser Gly Leu
 130          135          140
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145

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<210> 4731

<211> 2417

<212> DNA

<213> Homo sapiens

<400> 4731

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180
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240
aagtaacagg acagatttct ccagcaaat cagtctccac aaccaaata atattgttct
300
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420
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480
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540
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600
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660
gcaccttcct tccatcagag tctgctgccc ggggtgggctg ggaaggaggg agatacaaag
720
aagaaagtag gcatgatcac tgggtcggtt cccaagccac cctcaccctc caagaaggca
780

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1080
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2220
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2280
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2400

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<211> 129
<212> PRT
<213> Homo sapiens

<400> 4732
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20 25 30
Ala Arg Met Ala Gly His Val Ser Val Leu Val Ser His Phe Pro Pro
35 40 45
Ser Val Thr Tyr Leu Gly Ile Pro Gln Gly Leu Leu Glu Cys Asp Cys
50 55 60
Pro Leu Pro Ser Cys Leu Gly Tyr Lys Ser Trp Pro Tyr Val Pro Ala
65 70 75 80
Val Arg Gly Ser Gly Asn Pro Thr Gln Pro Pro Val Leu Gly Trp Ser
85 90 95
Val Ser Ile His Pro Leu Val Val Ile Glu Ala Ala Leu Pro Val Leu
100 105 110
Gly Glu Asp Ile Trp Ala Thr Arg Ala Pro Leu Ala Pro Ser Arg Arg
115 120 125
Lys

<210> 4733
<211> 543
<212> DNA
<213> Homo sapiens

<400> 4733
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180
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240
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300
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360
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420
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540
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543

<210> 4734
 <211> 181
 <212> PRT
 <213> Homo sapiens

<400> 4734
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 Val Glu Gly Leu Ser Gly Arg Arg Asp Pro Leu Gly Asp Pro Thr Met
 20 25 30
 Phe Phe Tyr Leu Ser Lys Lys Ile Ser Ile Pro Asn Asn Val Lys Leu
 35 40 45
 Gln Cys Val Ser Trp Asn Lys Glu Gln Gly Phe Ile Ala Cys Gly Gly
 50 55 60
 Glu Asp Gly Leu Leu Lys Val Leu Lys Leu Glu Thr Gln Thr Asp Asp
 65 70 75 80
 Ala Lys Leu Arg Gly Leu Ala Ala Pro Ser Asn Leu Ser Met Asn Gln
 85 90 95
 Thr Leu Glu Gly His Ser Gly Ser Val Gln Val Val Thr Trp Asn Glu
 100 105 110
 Gln Tyr Gln Lys Leu Thr Thr Ser Asp Glu Asn Gly Leu Ile Ile Val
 115 120 125
 Trp Met Leu Tyr Lys Gly Ser Trp Ile Glu Glu Met Ile Asn Asn Arg
 130 135 140
 Asn Lys Ser Val Val Arg Ser Met Ser Trp Asn Ala Asp Gly Gln Lys
 145 150 155 160
 Ile Cys Ile Val Tyr Glu Asp Gly Ala Val Ile Val Gly Ser Val Asp
 165 170 175
 Gly Asn Arg Ile Trp
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<210> 4735
 <211> 300
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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<210> 4736
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 4736

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Met Val Ala Gly Ala Gly Arg Glu Asn Gly Met Glu Thr Pro Met His
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Glu Asn Pro Glu Trp Glu Lys Ala Arg Gln Ala Leu Ala Ser Ile Ser
 20           25           30
Lys Ser Gly Ala Ala Gly Gly Ser Ala Lys Ser Ser Ser Asn Gly Pro
 35           40           45
Val Ala Ser Ala Gln Tyr Val Ser Gln Ala Lys Ala Ser Ala Leu Gln
 50           55           60
Gln Gln Gln Tyr Tyr Gln Trp Tyr Gln Gln Asp Asn Tyr Ala Tyr Pro
 65           70           75           80
Tyr Ser Tyr Tyr Tyr Pro Met Pro Pro Gly Pro Gly Met
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<210> 4737

<211> 2602

<212> DNA

<213> Homo sapiens

<400> 4737

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120
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240
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1020

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<210> 4738
 <211> 756
 <212> PRT
 <213> Homo sapiens

<400> 4738

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His Gln Asp Val Ser Glu Arg Arg Leu Asp Thr Gln Arg Pro Gln Val
          20           25           30
Thr Met Trp Glu Arg Asp Val Ser Ser Asp Arg Gln Glu Pro Gly Arg
          35           40           45
Arg Gly Arg Ser Trp Gly Leu Glu Gly Ser Gln Ala Leu Ser Gln Gln
          50           55           60
Ala Glu Val Ile Val Arg Gln Leu Gln Glu Leu Arg Arg Leu Glu Glu
65          70           75           80
Glu Val Arg Leu Leu Arg Glu Thr Ser Leu Gln Gln Lys Met Arg Leu
          85           90           95
Glu Ala Gln Ala Met Glu Leu Glu Ala Leu Ala Arg Ala Glu Lys Ala
          100          105          110
Gly Arg Ala Glu Ala Glu Gly Leu Arg Ala Ala Leu Ala Gly Ala Glu
          115          120          125
Val Val Arg Lys Asn Leu Glu Glu Gly Arg Gln Arg Glu Leu Glu Glu
          130          135          140
Val Gln Arg Leu His Gln Glu Gln Leu Ser Ser Leu Thr Gln Ala His
145          150          155          160
Glu Glu Ala Leu Ser Ser Leu Thr Ser Lys Ala Glu Gly Leu Glu Lys
          165          170          175
Ser Leu Ser Ser Leu Glu Thr Arg Arg Ala Gly Glu Ala Lys Glu Leu
          180          185          190
Ala Glu Ala Gln Arg Glu Ala Glu Leu Leu Arg Lys Gln Leu Ser Lys
          195          200          205
Thr Gln Glu Asp Leu Glu Ala Gln Val Thr Leu Val Glu Asn Leu Arg
          210          215          220
Lys Tyr Val Gly Glu Gln Val Pro Ser Glu Val His Ser Gln Thr Trp
225          230          235          240
Glu Leu Glu Arg Gln Lys Leu Leu Glu Thr Met Gln Leu Leu Gln Glu
          245          250          255
Asp Arg Asp Ser Leu His Ala Thr Ala Glu Leu Leu Gln Val Arg Val
          260          265          270
Gln Ser Leu Thr His Ile Leu Ala Leu Gln Glu Glu Glu Leu Thr Arg
          275          280          285
Lys Val Gln Pro Ser Asp Ser Leu Glu Pro Glu Phe Thr Arg Lys Cys
          290          295          300
Gln Ser Leu Leu Asn Arg Trp Arg Glu Lys Val Phe Ala Leu Met Val
305          310          315          320
Gln Leu Lys Ala Gln Glu Leu Glu His Ser Asp Ser Val Lys Gln Leu
          325          330          335
Lys Gly Gln Val Ala Ser Leu Gln Glu Lys Val Thr Ser Gln Ser Gln
          340          345          350
Glu Gln Ala Ile Leu Gln Arg Ser Leu Gln Asp Lys Ala Ala Glu Val
          355          360          365
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<211> 684
<212> DNA
<213> Homo sapiens
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<400> 4739

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684

<210> 4740

<211> 119

<212> PRT

<213> Homo sapiens

<400> 4740

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Pro	Ala	Val	Thr	Gln	Leu	Ser	His	Leu	Arg	Gly	Ser	Leu	Asp	Ala	Ala
			20					25					30		
Trp	Leu	Ser	Asp	Lys	Asp	Lys	Glu	Lys	Ile	Gln	Met	Ser	Thr	Arg	Ala
		35					40					45			
Val	His	Ile	Leu	Trp	Val	Ser	Trp	Glu	Gln	Gly	Trp	Ala	Val	Pro	Glu
	50					55				60					
Ala	Pro	Ser	Gln	Pro	Ala	Pro	Gln	Ala	Ala	Asn	Gly	Ser	Leu	Leu	Leu
65				70					75					80	
Gly	Gln	Gly	Ile	Cys	Gly	Gln	Glu	Ser	Thr	Leu	Val	Arg	Arg	Arg	Leu
			85				90						95		
Ala	Ser	Asn	Thr	Gln	Pro	Cys	Leu	Arg	Ala	Pro	Ala	Val	Glu	Gly	Ser
			100				105						110		
Gly	Arg	Val	Gln	Gly	Ala	Asp									
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<210> 4741

<211> 411

<212> DNA

<213> Homo sapiens

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 ttccgaaaaa aagaggggaa ttttttaaaa aacccgaaaag gggggaaggg ggggggtata
 180
 aaagataaaa tttggttttt tgggggggaa aatttggaaca cccaccctc gggttttttt
 240
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 300
 ataaaaaaaa aatgggggttc caaaatcatt gaaaaatagg ggggactcca aaaccttgaa
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<210> 4742
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 4742
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 Phe Phe Leu Gly Pro Pro Phe Lys Ile Phe Trp Gly Gly Glu Lys Lys
 20 25 30
 Pro Glu Gly Gly Val Ser Lys Phe Ser Pro Pro Lys Asn Gln Ile Leu
 35 40 45
 Ser Phe Ile Pro Pro Pro Phe Pro Pro Phe Gly Phe Phe Lys Lys Phe
 50 55 60
 Pro Ser Phe Phe Arg Lys Gly Lys Gly Gly Glu Arg Gly Gly Gln Arg
 65 70 75 80
 Lys Thr Pro Phe Phe Leu Arg Lys Lys Arg Glu Lys Lys Lys Lys
 85 90 95
 Lys Glu Arg Lys Thr Pro Val Asp Leu Arg Glu Val Asn
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<210> 4743
 <211> 473
 <212> DNA
 <213> Homo sapiens

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 120
 gagtgattga gtcccggtat ctgcagtatg aaaagaagac aacccaaaag gctcctgcag
 180
 gagatgggtc acagacccga gggaagatgt ctgaaggtgg aaggaaatcc agcctgctcc
 240
 agaaaagcaa agcagatagc agtgggggtcg gaaaggtga cctgcagtcc acgttgctgg
 300

aagggcatgg cacagctcca cctgacctgg atctctctgc tattaatgac aaaagcatcg
 360
 tcaaaaagac gccacagtta gcaaaaacaa tatcaaagaa acctgagtca acatcatttt
 420
 ctgcccctcg gaaaaagagc ccggatttat ctgaagcgaa tggaatgatg gag
 473

<210> 4744
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 4744
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 Thr Asn Ser Ser Ser Ala Lys Lys Lys Asp Lys Arg Val Gln Gly Gly
 20 25 30
 Arg Val Ile Glu Ser Arg Tyr Leu Gln Tyr Glu Lys Lys Thr Thr Gln
 35 40 45
 Lys Ala Pro Ala Gly Asp Gly Ser Gln Thr Arg Gly Lys Met Ser Glu
 50 55 60
 Gly Gly Arg Lys Ser Ser Leu Leu Gln Lys Ser Lys Ala Asp Ser Ser
 65 70 75 80
 Gly Val Gly Lys Gly Asp Leu Gln Ser Thr Leu Leu Glu Gly His Gly
 85 90 95
 Thr Ala Pro Pro Asp Leu Asp Leu Ser Ala Ile Asn Asp Lys Ser Ile
 100 105 110
 Val Lys Lys Thr Pro Gln Leu Ala Lys Thr Ile Ser Lys Lys Pro Glu
 115 120 125
 Ser Thr Ser Phe Ser Ala Pro Arg Lys Lys Ser Pro Asp Leu Ser Glu
 130 135 140
 Ala Asn Gly Met Met Glu
 145 150

<210> 4745
 <211> 666
 <212> DNA
 <213> Homo sapiens

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 attcagaaag aactttggcg aattcaggat gtcattggaag ggctgagtaa acataagcag
 180
 caaaggagta ctacagaaat aggtatgata ggatcaaagc ctttctcaac agttaagtac
 240
 aaaaatgagg gtccagatta tagactctac aagagtgaac cagagttaac aacagtggca
 300
 gaagttgatg aatctaattgg agaagaaaaa tcagaacctg tttcagagat agaaacttca
 360
 gttgttaaag gttcccactt tcctgttgga gtagtccttc caagagcaaa atcaccaaca
 420

cccgaatctt cgacaatagc ttcctatgta accttgagga aaactaagaa gatgatggat
 480
 ctaagaacgg aaagaccaag aagtgcagtg gaacagctct gtttggctga aagtactcga
 540
 ccaaggatga ctgtggaaga gcaaattggaa agaataagaa gatatcaaca agcgtgcctg
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 660
 ccttaa
 666

<210> 4746
 <211> 221
 <212> PRT
 <213> Homo sapiens

<400> 4746
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 20 25 30
 Ser Ala Gly Ile Gln Arg Ala Gln Ile Gln Lys Glu Leu Trp Arg Ile
 35 40 45
 Gln Asp Val Met Glu Gly Leu Ser Lys His Lys Gln Gln Arg Gly Thr
 50 55 60
 Thr Glu Ile Gly Met Ile Gly Ser Lys Pro Phe Ser Thr Val Lys Tyr
 65 70 75 80
 Lys Asn Glu Gly Pro Asp Tyr Arg Leu Tyr Lys Ser Glu Pro Glu Leu
 85 90 95
 Thr Thr Val Ala Glu Val Asp Glu Ser Asn Gly Glu Glu Lys Ser Glu
 100 105 110
 Pro Val Ser Glu Ile Glu Thr Ser Val Val Lys Gly Ser His Phe Pro
 115 120 125
 Val Gly Val Val Pro Pro Arg Ala Lys Ser Pro Thr Pro Glu Ser Ser
 130 135 140
 Thr Ile Ala Ser Tyr Val Thr Leu Arg Lys Thr Lys Lys Met Met Asp
 145 150 155 160
 Leu Arg Thr Glu Arg Pro Arg Ser Ala Val Glu Gln Leu Cys Leu Ala
 165 170 175
 Glu Ser Thr Arg Pro Arg Met Thr Val Glu Glu Gln Met Glu Arg Ile
 180 185 190
 Arg Arg Tyr Gln Gln Ala Cys Leu Arg Glu Lys Lys Lys Gly Leu Asn
 195 200 205
 Val Ile Gly Ala Ser Asp Gln Ser Pro Leu Gln Ser Pro
 210 215 220

<210> 4747
 <211> 1091
 <212> DNA
 <213> Homo sapiens

<400> 4747
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 120
 ggctgcagcc tccggcactt tgctgcgaa cagaacctgc tgtcgcggcc agatggctct
 180
 gcttccttcc tgcaagggtga cacctctgtc ctggcgggtg tgtacgggcc ggccgaggtg
 240
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 300
 gggctgcctg caggggtcag tggatggcag tcaggccttg cttctctccc actggaatct
 360
 tccatcatcc ctgcaggtgt tgcagagaag agccgggagc ggctgatcag gaacacgtgc
 420
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 540
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 660
 tttgccctgg acagcgtgga acggaagctg ctgatgtcca gcaccaaggg gctctactca
 720
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 780
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 900
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<210> 4748

<211> 273

<212> PRT

<213> Homo sapiens

<400> 4748

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Met	Glu	Glu	Glu	Thr	His	Thr	Asp	Ala	Lys	Ile	Arg	Ala	Glu	Asn	Gly
			20					25				30			
Thr	Gly	Ser	Ser	Pro	Arg	Gly	Pro	Gly	Cys	Ser	Leu	Arg	His	Phe	Ala
			35				40				45				
Cys	Glu	Gln	Asn	Leu	Leu	Ser	Arg	Pro	Asp	Gly	Ser	Ala	Ser	Phe	Leu
			50			55				60					
Gln	Gly	Asp	Thr	Ser	Val	Leu	Ala	Gly	Val	Tyr	Gly	Pro	Ala	Glu	Val
65					70				75					80	
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<210> 4749
<211> 2196
<212> DNA
<213> Homo sapiens
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660
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2196

<210> 4750

<211> 276
 <212> PRT
 <213> Homo sapiens

<400> 4750
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 Gln Glu Leu Gln Gln Thr Asp Pro Thr Leu Leu Ser Val Val Val Ala
 35 40 45
 Val Leu Ala Val Leu Leu Thr Leu Val Phe Trp Lys Leu Ile Arg Ser
 50 55 60
 Arg Arg Ser Ser Gln Arg Ala Val Leu Leu Val Gly Leu Cys Asp Ser
 65 70 75 80
 Gly Lys Thr Leu Leu Phe Val Arg Leu Leu Thr Gly Leu Tyr Arg Asp
 85 90 95
 Thr Gln Thr Ser Ile Thr Asp Ser Cys Ala Val Tyr Arg Val Asn Asn
 100 105 110
 Asn Arg Gly Asn Ser Leu Thr Leu Ile Asp Leu Pro Gly His Glu Ser
 115 120 125
 Leu Arg Leu Gln Phe Leu Glu Arg Phe Lys Ser Ser Ala Arg Ala Ile
 130 135 140
 Val Phe Val Val Asp Ser Ala Ala Phe Gln Arg Glu Val Lys Asp Val
 145 150 155 160
 Ala Glu Phe Leu Tyr Gln Val Leu Ile Asp Ser Met Gly Leu Lys Asn
 165 170 175
 Thr Pro Ser Phe Leu Ile Ala Cys Asn Lys Gln Asp Ile Ala Met Ala
 180 185 190
 Lys Ser Ala Lys Leu Ile Gln Gln Gln Leu Glu Lys Glu Leu Asn Thr
 195 200 205
 Leu Arg Val Thr Arg Ser Ala Ala Pro Ser Thr Leu Asp Ser Ser Ser
 210 215 220
 Thr Ala Pro Ala Gln Leu Gly Lys Lys Gly Lys Glu Phe Glu Phe Ser
 225 230 235 240
 Gln Leu Pro Leu Lys Val Glu Phe Leu Glu Cys Ser Ala Lys Gly Gly
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 260 265 270
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<210> 4751
 <211> 2777
 <212> DNA
 <213> Homo sapiens

<400> 4751
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 180

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 2777

<210> 4752

<211> 335

<212> PRT

<213> Homo sapiens

<400> 4752

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			20						25					30	
Leu	Leu	Asp	Ser	Leu	His	Val	Gln	Thr	Phe	Phe	His	Arg	Phe	Asp	Pro
		35					40					45			
Ser	Leu	Trp	Pro	Arg	Ile	Thr	Phe	Leu	Leu	Pro	Pro	Ala	Pro	Pro	Pro
	50					55					60				
Met	Leu	Ala	Ala	Pro	Gln	Leu	Ile	Gln	Arg	Pro	Val	Met	Leu	Thr	Lys
65					70					75					80
Phe	Thr	Pro	Thr	Thr	Leu	Pro	Thr	Ser	Gln	Asn	Ser	Ile	His	Pro	Val
				85					90					95	
Arg	Val	Val	Asn	Gly	Gln	Thr	Ala	Thr	Ile	Ala	Lys	Thr	Phe	Pro	Met

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Gly Pro Gln Thr Val Gln Leu Ser Lys Pro Ser	Leu Glu Lys Gln Thr	
130	135	140
Val Lys Ser His Thr Glu Thr Asp Glu Lys Gln Thr Glu Ser Arg Thr		
145	150	155
Ile Thr Pro Pro Ala Ala Pro Lys Pro Lys Arg Glu Glu Asn Pro Gln		
165	170	175
Lys Leu Ala Phe Met Val Ser Leu Gly Leu Val Thr His Asp His Leu		
180	185	190
Glu Glu Ile Gln Ser Lys Arg Gln Glu Arg Lys Arg Arg Thr Thr Ala		
195	200	205
Asn Pro Val Tyr Ser Gly Ala Val Phe Glu Pro Glu Arg Lys Lys Ser		
210	215	220
Ala Val Thr Tyr Leu Asn Ser Thr Met His Pro Gly Thr Arg Lys Arg		
225	230	235
Ala Asn Glu Glu His Trp Pro Lys Gly Asp Ile His Glu Asp Phe Cys		
245	250	255
Ser Val Cys Arg Lys Ser Gly Gln Leu Leu Met Cys Asp Thr Cys Ser		
260	265	270
Arg Val Tyr His Leu Asp Cys Leu Asp Pro Pro Leu Lys Thr Ile Pro		
275	280	285
Lys Gly Met Trp Ile Cys Pro Arg Cys Gln Asp Gln Met Leu Lys Lys		
290	295	300
Glu Glu Ala Ile Pro Trp Xaa Trp Asn Phe Ser Asn Cys Ser Phe Leu		
305	310	315
Tyr Cys Leu Gln Ser Ser Lys Arg Arg Arg Glu Thr Glu Val Thr		
325	330	335

<210> 4753

<211> 5298

<212> DNA

<213> Homo sapiens

<400> 4753

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 <212> PRT
 <213> Homo sapiens

<400> 4754

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<211> 2093

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

<400> 4761

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<211> 251

<212> PRT

<213> Homo sapiens

<400> 4762

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Leu	Gln	Arg	Leu	Tyr	Ser	Met	Asp	Leu	Arg	Ser	Ser	His	Lys	Ala	Lys
				85					90					95	
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			100					105					110		
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Pro	Asn	Leu	Glu	Ser	His	Ser	His	Arg	Arg	Glu	Leu	Phe	Leu	Gln	Glu
				165					170					175	
Pro	Pro	Ala	Pro	Asp	Val	Leu	Gln	Ala	Ala	Gly	Glu	Trp	Glu	Pro	Ala
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<211> 2158
<212> DNA
<213> Homo sapiens

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<211> 719

<212> PRT

<213> Homo sapiens

<400> 4764

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			20					25					30		
Leu	Lys	Lys	Arg	Glu	Ile	Lys	Leu	Ser	Asp	Asp	Phe	Asp	Ser	Pro	Val
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	50				55					60					
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Thr	Ala	Leu	Gly	His	Glu	Gly	Lys	Gln	Leu	Val	Asn	Gly	Glu	Val	Ser
			85					90					95		
Asp	Glu	Arg	Val	Ala	Pro	Asn	Phe	Lys	Thr	Glu	Pro	Ile	Glu	Thr	Lys
		100						105					110		
Phe	Tyr	Glu	Thr	Lys	Glu	Glu	Ser	Tyr	Ser	Pro	Ser	Lys	Asp	Arg	Asn
	115						120					125			
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Ser	Met	Lys	Thr	Gly	Glu	Leu	Glu	Lys	Glu	Thr	Ala	Pro	Leu	Arg	Lys
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3943

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Leu Leu Glu Arg Arg Ser Thr Arg Thr Arg Lys Cys Ile Ser Tyr Arg		655
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Phe Asp Glu Phe Asp Glu Ala Ile Asp Glu Ala Ile Glu Asp Asp Ile		670
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 <212> DNA
 <213> Homo sapiens

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<211> 280

<212> PRT

<213> Homo sapiens

<400> 4766

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			20					25					30		
Pro	Glu	Pro	Arg	Arg	Thr	Glu	His	Arg	Ala	Pro	Ser	Ser	Thr	Trp	Arg
			35				40						45		
Pro	Val	Ala	Leu	Thr	Leu	Leu	Thr	Leu	Cys	Leu	Val	Leu	Leu	Ile	Gly
			50				55				60				
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Thr	Gly	Gln	Asp	Thr	Ile	Ser	Gln	Met	Glu	Glu	Arg	Leu	Gly	Asn	Thr
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Ser	Gln	Glu	Leu	Gln	Ser	Leu	Gln	Val	Gln	Asn	Ile	Lys	Leu	Ala	Gly
			100					105					110		
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Cys	Lys	Tyr	Phe	Cys	Leu	Ser	Glu	Asn	Ser	Thr	Met	Leu	Lys	Ile	Asn
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<213> Homo sapiens
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3947

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720

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<210> 4770

<211> 237

<212> PRT

<213> Homo sapiens

<400> 4770

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Pro	Glu	Gly	Gln	Tyr	Ser	Glu	Asp	Glu	Asp	Thr	Asp	Thr	Asp	Glu	Tyr
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Ala	Pro	Phe	Pro	Asn	Arg	Asn	Arg	Val	Ile	Gln	Pro	Met	Gly	Met	Ser
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 <211> 2653
 <212> DNA
 <213> Homo sapiens

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 35 40 45
 Lys Pro Asp Val Val Gln Asp Lys Glu Thr Glu Arg Asn Leu Gln Arg
 50 55 60
 Ile Ala Thr Arg Gly Val Val Gln Leu Phe Asn Ala Val Gln Lys His
 65 70 75 80
 Gln Lys Asn Val Asp Glu Lys Val Lys Glu Ala Gly Ser Ser Met Arg
 85 90 95
 Lys Arg Ala Lys Leu Ile Ser Thr Val Ser Lys Lys Asp Phe Ile Ser
 100 105 110
 Val Leu Arg Gly Met Asp Gly Ser Thr Asn Glu Thr Ala Ser Ser Arg
 115 120 125
 Lys Lys Pro Lys Ala Lys Gln Thr Glu Val Lys Ser Glu Glu Gly Pro
 130 135 140
 Gly Trp Thr Ile Leu Arg Asp Asp Phe Met Met Gly Ala Ser Met Lys
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 <211> 319
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<210> 4774
 <211> 91
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<213> Homo sapiens

<400> 4774

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Pro Asn Pro Ser Ser Leu Phe Pro Pro Ser Pro Gln Ala Arg Ala Ala
      35             40             45
Met Gly Trp Arg Val Leu Ala Trp Thr Gln His Pro Ile Ser Ser Ala
      50             55             60
Leu Ser Leu Asp Pro Ala Ser His Leu Leu Ser Ser Gln Gly Gly Gly
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<210> 4775

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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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Leu Trp Leu His Cys Pro Pro Cys Tyr Phe Phe Glu Arg Ala Asn His
      35             40             45
Thr Ala Thr Ser Leu Pro Leu His Leu Leu Ser Leu Leu Leu Thr
      50             55             60
Ile His Ala Ala His Pro Val Thr Ser Phe Gln Phe Leu Leu Thr Phe

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<210> 4777

<211> 2200

<212> DNA

<213> Homo sapiens

<400> 4777

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<211> 144

<212> PRT

<213> Homo sapiens

<400> 4778

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			20					25					30		
Arg	Ala	Glu	Asn	Arg	Glu	Leu	Gly	Lys	Arg	Val	Gln	Ala	Leu	Gln	Glu
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Arg	Leu	Leu	Ser	Arg	Leu	Ser	Gly	Val	Gly	Leu	Arg	Leu	Thr	Thr	Ser
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Leu	Phe	Arg	Asp	Ser	Pro	Ala	Gly	Asp	His	Asp	Tyr	Ala	Leu	Pro	Val
			85					90					95		
Gly	Lys	Gln	Lys	Gln	Asp	Leu	Leu	Glu	Glu	Asp	Asp	Ser	Ala	Gly	Gly
			100					105					110		
Val	Cys	Leu	His	Val	Asp	Lys	Asp	Lys	Val	Ser	Val	Glu	Phe	Cys	Ser

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 <212> DNA
 <213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4780

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Gly	Asn	Gly	Pro	Tyr	Asn	Asp	Val	Asp	Ile	Pro	Gly	Cys	Trp	Phe
	740						745						750	
Lys	Leu	Pro	His	Lys	Asp	Gly	Asn	Ser	Cys	Asn	Val	Gly	Ser	Pro
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Pro	Gly	Gly	Ala	Ser	Gly	Pro	Arg	Ala	Leu	Glu	Ile	Asn	Lys	Met
785				790						795				800
Ser	Phe	Trp	Arg	Asn	Ala	His	Lys	Arg	Ile	Ser	Ser	Gln	Met	Val
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<211> 344
<212> DNA
<213> Homo sapiens

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<212> PRT
<213> Homo sapiens

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50 55 60
Pro Lys Ser Gln His Arg Met Leu Ala Pro Thr Gly Ala Val Ser Thr
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<210> 4784

<211> 212

<212> PRT

<213> Homo sapiens

<400> 4784

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Gln	Arg	Leu	Lys	Ser	Leu	Asn	Leu	Arg	Ser	Cys	Arg	His	Leu	Ser	Asp
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Asn Ile Ser Asp Thr Gly Ile Met His Leu Ala Met Gly Ser Leu Arg		
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<210> 4785

<211> 3289

<212> DNA

<213> Homo sapiens

<400> 4785

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<212> PRT

<213> Homo sapiens

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			20					25					30		
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Ser	Leu	Arg	Gly	Lys	Ala	Val	Val	Leu	Met	Gly	Lys	Asn	Thr	Met	Met
	50				55						60				
Arg	Lys	Ala	Ile	Arg	Gly	His	Leu	Glu	Asn	Asn	Pro	Ala	Leu	Glu	Lys
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Asp	Leu	Thr	Glu	Ile	Arg	Asp	Met	Leu	Leu	Ala	Asn	Lys	Val	Pro	Ala
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Ala	Ala	Arg	Ala	Gly	Ala	Ile	Ala	Pro	Cys	Glu	Val	Thr	Val	Pro	Ala
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<212> DNA
<213> Homo sapiens
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Val Ala Pro Lys Val Thr Thr Arg Gly Leu Gly Pro Ala Gly Ala Ser
245          250          255
Leu Trp Thr Val Tyr Glu Asp Ser Lys Arg Gln Gly Leu Ser Leu Glu
260          265          270
Ile Val Gln Gly Leu Gln Gly Gln Ala Gly Pro Glu Ser Ile Ser Pro
275          280          285
Val Val Thr Val Pro Gln Arg Gly Ile Arg Pro Phe Gly Lys Leu Asp
290          295          300
Arg Asn Thr Arg Met Ala Ser Leu Asp Cys Lys Ser Leu Glu Trp Gln
305          310          315          320
Pro Leu Ala Ile Leu Leu Glu Gln Lys Asn Met Ala Ala Asp Gly Pro
325          330          335
Val Leu Asn Ser Pro Glu Pro Lys Pro Ala Gln Gly Ser Cys Phe Leu
340          345          350
Leu Gln Arg Val Ala Ser Glu Val Leu Cys Ala Thr Val Pro Ala Arg
355          360          365
Gly Ile Gln Gly Trp Pro Glu Pro Lys Pro Ser Pro Gly Ser Glu Leu
370          375          380
Ser Ala Leu Lys Ala His Glu Val Leu Gln Ile Met Leu Gly Leu Pro
385          390          395          400
Thr Glu Asp Met Leu Val Arg Lys Gln Ala Pro Gln Pro Leu Phe Leu

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<210> 4797
<211> 2848
<212> DNA
<213> Homo sapiens
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3978

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1740
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1800
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1920
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2340
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2460
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2520

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 2580
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 2640
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 2700
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 2820
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 2848

<210> 4798
 <211> 401
 <212> PRT
 <213> Homo sapiens

<400> 4798
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 20 25 30
 Phe Glu Ser Phe Leu Asp Asp Glu Glu Asp Leu Asp Val Lys Ala Gly
 35 40 45
 Gly Gly Cys Val Met Thr Ile Gly Glu Met Leu Arg Ser Phe Leu Thr
 50 55 60
 Lys Leu Glu Trp Phe Ser Thr Leu Phe Pro Arg Ile Pro Val Pro Val
 65 70 75 80
 Gln Lys Asn Ile Asp Gln Gln Ile Lys Thr Arg Pro Arg Lys Ile Lys
 85 90 95
 Lys Asp Gly Lys Glu Gly Ala Glu Glu Ile Asp Arg His Val Glu Arg
 100 105 110
 Arg Arg Ser Arg Ser Pro Arg Arg Ser Leu Ser Pro Arg Arg Ser Pro
 115 120 125
 Arg Arg Ser Arg Ser Arg Ser His His Arg Glu Gly His Gly Ser Ser
 130 135 140
 Ser Phe Asp Arg Glu Leu Glu Arg Glu Lys Glu Arg Gln Arg Leu Glu
 145 150 155 160
 Arg Glu Ala Lys Glu Arg Glu Lys Glu Arg Arg Arg Ser Arg Ser Ile
 165 170 175
 Asp Arg Gly Leu Glu Arg Arg Arg Ser Arg Ser Arg Glu Arg His Arg
 180 185 190
 Ser Arg Ser Arg Ser Arg Asp Arg Lys Gly Asp Arg Arg Asp Arg Asp
 195 200 205
 Arg Glu Arg Glu Lys Glu Asn Glu Arg Gly Arg Arg Arg Asp Arg Asp
 210 215 220
 Tyr Asp Lys Glu Arg Gly Asn Glu Arg Glu Lys Glu Arg Glu Arg Ser
 225 230 235 240
 Arg Glu Arg Ser Lys Glu Gln Arg Ser Arg Gly Glu Val Glu Glu Lys
 245 250 255
 Lys His Lys Glu Asp Lys Asp Asp Arg Arg His Arg Asp Asp Lys Arg
 260 265 270
 Asp Ser Lys Lys Glu Lys Lys His Ser Arg Ser Arg Ser Arg Glu Arg

```

      275              280              285
Lys His Arg Ser Arg Ser Arg Ser Arg Asn Ala Gly Lys Arg Ser Arg
  290              295              300
Ser Arg Ser Lys Glu Lys Ser Ser Lys His Lys Asn Glu Ser Lys Glu
  305              310              315              320
Lys Ser Asn Lys Arg Ser Arg Ser Gly Ser Gln Gly Arg Thr Asp Ser
      325              330              335
Val Glu Lys Ser Lys Lys Arg Glu His Ser Pro Ser Lys Glu Lys Ser
      340              345              350
Arg Lys Arg Ser Arg Ser Lys Glu Arg Ser His Lys Arg Asp His Ser
      355              360              365
Asp Ser Lys Asp Gln Ser Asp Lys His Asp Arg Arg Arg Ser Gln Ser
      370              375              380
Ile Glu Gln Glu Ser Gln Glu Lys Gln His Lys Asn Lys Asp Glu Thr
  385              390              395              400
Val

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<210> 4799

<211> 358

<212> DNA

<213> Homo sapiens

<400> 4799

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120
ctggatcagc ctcatcaccg agtggctcaa cctcatcttc aagtgggtgag acagagaagc
180
cctccggcat cctgggtcccc acccccgagg gccctgagtc atgtgtttct ttttggagac
240
aggccctttt ggtgggtcca tgagtctggt tactacagcc aggctccagc ccagggttcac
300
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358

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<210> 4800

<211> 119

<212> PRT

<213> Homo sapiens

<400> 4800

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Ala Ser Leu Ala Gly Glu Arg Val Ala Leu Asp His Leu Ser Gly Arg
  1              5              10              15
Ser Gln Asp Pro Leu Ser Val Leu Leu Pro Arg Gly Leu Leu Arg Leu
      20              25              30
Pro Pro Cys Gly His Arg Gly Ala Leu Asp Gln Pro His His Arg Val
      35              40              45
Ala Gln Pro His Leu Gln Val Val Arg Gln Arg Ser Pro Pro Ala Ser
      50              55              60
Trp Ser Pro Pro Pro Arg Ala Leu Ser His Val Phe Leu Phe Gly Asp
      65              70              75              80
Arg Pro Phe Trp Trp Val His Glu Ser Gly Tyr Tyr Ser Gln Ala Pro

```

	85		90		95										
Ala	Gln	Val	His	Gln	Phe	Pro	Ser	Ser	Cys	Glu	Thr	Gly	Pro	Gly	Ser
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Pro	Ser	Gly	His	Cys	Met	Ile									
	115														

<210> 4801

<211> 1447

<212> DNA

<213> Homo sapiens

<400> 4801

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120
atagccgagg cgctacagaa ccagctagcc tggctggaga acgtgtggct ctggatcacc
180
tttctgggcg atcccaagat cctctttctg ttctacttcc ccgcggccta ctacgcctcc
240
cgccgtgtgg gcatcgcggt gctctggatc agcctcatca ccgagtggct caacctcatc
300
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600
caggtgctgg ctggcctaata aactggcgct gtccctgggct ggctgatgac tnnccccgag
660
tgcctatgga gcgggagcgt aagcttctat gggttgactg cactggccct catgctaggg
720
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780
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900
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960
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1020
tacattttca atttcctcaa gtacaccctc tggccatgcc tagtcctggc cctcgtgccc
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1140
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1200
gaggcagccc catcccttc cagccctaa gtaggcctc ccctccctaa atctgcttcc
1260

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gcaccacctg gtcttagccc caaagatggg ccttctctct cccagataag ttggctcctcc
 1320
 ctctgccttt cctctcaagc ccccaaagag caaaggcaac agcaagacca gcgggttctt
 1380
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 1440
 aaaaaaa
 1447

<210> 4802

<211> 377

<212> PRT

<213> Homo sapiens

<400> 4802

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			20					25					30		
Ser	Thr	Leu	Gly	Ala	Gly	Ile	Val	Ile	Ala	Glu	Ala	Leu	Gln	Asn	Gln
		35					40						45		
Leu	Ala	Trp	Leu	Glu	Asn	Val	Trp	Leu	Trp	Ile	Thr	Phe	Leu	Gly	Asp
	50					55					60				
Pro	Lys	Ile	Leu	Phe	Leu	Phe	Tyr	Phe	Pro	Ala	Ala	Tyr	Tyr	Ala	Ser
65					70					75					80
Arg	Arg	Val	Gly	Ile	Ala	Val	Leu	Trp	Ile	Ser	Leu	Ile	Thr	Glu	Trp
				85					90					95	
Leu	Asn	Leu	Ile	Phe	Lys	Trp	Phe	Leu	Phe	Gly	Asp	Arg	Pro	Phe	Trp
			100					105					110		
Trp	Val	His	Glu	Ser	Gly	Tyr	Tyr	Ser	Gln	Ala	Pro	Ala	Gln	Val	His
		115					120					125			
Gln	Phe	Pro	Ser	Ser	Cys	Glu	Thr	Gly	Pro	Gly	Ser	Pro	Ser	Gly	His
		130				135					140				
Cys	Met	Ile	Thr	Gly	Ala	Ala	Leu	Trp	Pro	Ile	Met	Thr	Ala	Leu	Ser
145					150					155					160
Ser	Gln	Val	Ala	Thr	Arg	Ala	Arg	Ser	Arg	Trp	Val	Arg	Val	Met	Pro
			165						170					175	
Ser	Leu	Ala	Tyr	Cys	Thr	Phe	Leu	Leu	Ala	Val	Gly	Leu	Ser	Arg	Ile
		180						185					190		
Phe	Ile	Leu	Ala	His	Phe	Pro	His	Gln	Val	Leu	Ala	Gly	Leu	Ile	Thr
		195					200					205			
Gly	Ala	Val	Leu	Gly	Trp	Leu	Met	Thr	Xaa	Pro	Glu	Cys	Leu	Trp	Ser
	210					215					220				
Gly	Ser	Xaa	Ser	Phe	Tyr	Gly	Leu	Thr	Ala	Leu	Ala	Leu	Met	Leu	Gly
225					230					235					240
Thr	Ser	Leu	Ile	Tyr	Trp	Thr	Leu	Phe	Thr	Leu	Gly	Leu	Asp	Leu	Ser
			245						250					255	
Trp	Ser	Ile	Ser	Leu	Ala	Phe	Lys	Trp	Cys	Glu	Arg	Pro	Glu	Trp	Ile
		260						265					270		
His	Val	Asp	Ser	Arg	Pro	Phe	Ala	Ser	Leu	Ser	Arg	Asp	Ser	Gly	Ala
		275					280						285		
Ala	Leu	Gly	Leu	Gly	Ile	Ala	Leu	His	Ser	Pro	Cys	Tyr	Ala	Gln	Val
	290					295					300				
Arg	Arg	Ala	Gln	Leu	Gly	Asn	Gly	Gln	Lys	Ile	Ala	Cys	Leu	Val	Leu

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305          310          315          320
Ala Met Gly Leu Leu Gly Pro Leu Asp Trp Leu Gly His Pro Pro Gln
          325          330          335
Ile Ser Leu Phe Tyr Ile Phe Asn Phe Leu Lys Tyr Thr Leu Trp Pro
          340          345          350
Cys Leu Val Leu Ala Leu Val Pro Trp Ala Val His Met Phe Ser Ala
          355          360          365
Gln Glu Ala Pro Pro Ile His Ser Ser
          370          375

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<210> 4803
 <211> 564
 <212> DNA
 <213> Homo sapiens

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<400> 4803
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120
ccaaaacctg ctaatgcctg atttccatta cgtgctactc ctcaaattggc agcggcttct
180
gaatattaca gagatggtgt gctgtttgct tttctctttt gttgtagcat aaaactgttc
240
attttagctt agtgacattt gtcaagaata gcaacctttt tgcttccaag ggacttgaag
300
gaagttaaat ttagatgctt tcctctcttc ttattttgtg gaggtatttc ctgttcagta
360
gcaaatcagt tatagaatat attagcattg ttatatttta aactaatgac taatcatttc
420
agctttattc atactgttgc attttatatt tcacagggag caatagaaaa agtgaaagaa
480
agtgacaaac tagttgcaac aagtaaaatc accctacaag acaaacagaa catgggtgaag
540
agagtcagca tcatgtctta cgcg
564

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<210> 4804
 <211> 53
 <212> PRT
 <213> Homo sapiens

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<400> 4804
Met Thr Asn His Phe Ser Phe Ile His Thr Val Ala Phe Tyr Ile Ser
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Gln Gly Ala Ile Glu Lys Val Lys Glu Ser Asp Lys Leu Val Ala Thr
          20          25          30
Ser Lys Ile Thr Leu Gln Asp Lys Gln Asn Met Val Lys Arg Val Ser
          35          40          45
Ile Met Ser Tyr Ala
50

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<210> 4805
 <211> 1619

<212> DNA

<213> Homo sapiens

<400> 4805

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120
aaatccatgc agaaaaaact tcggagtaat tggaagattc agagcttaaa agatgaaatc
180
acatctgaga agttaaatgg agtaaaactg tggattacag ctgggcccaag ggaaaaattt
240
actgcagctg agtttgaaat cctgaagaaa tatcttgaca ctggtgggga tgtccttgtg
300
atgctagggg aagggtggaga atccagattt gacaccaata ttaacttttt actagaagaa
360
tatggaatca tggttaataa tgatgctgtg gttagaaatg tatatcacia atatttccat
420
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480
aaggctgtgc tggcgatcat tgatgaggaa agcagtggaa acaatgccca ggctctcacc
540
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780
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1320
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1380
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1500

aataactcaga taggtataag atttttcaca aaatccttat gtaagataca ttccattttt
 1560
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 1619

<210> 4806

<211> 438

<212> PRT

<213> Homo sapiens

<400> 4806

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Glu	Ile	Phe	Thr	Thr	Asn	Asn	Gly	Tyr	Lys	Ser	Met	Gln	Lys	Lys	Leu
			20					25					30		
Arg	Ser	Asn	Trp	Lys	Ile	Gln	Ser	Leu	Lys	Asp	Glu	Ile	Thr	Ser	Glu
		35				40					45				
Lys	Leu	Asn	Gly	Val	Lys	Leu	Trp	Ile	Thr	Ala	Gly	Pro	Arg	Glu	Lys
	50					55					60				
Phe	Thr	Ala	Ala	Glu	Phe	Glu	Ile	Leu	Lys	Lys	Tyr	Leu	Asp	Thr	Gly
65					70					75				80	
Gly	Asp	Val	Leu	Val	Met	Leu	Gly	Glu	Gly	Gly	Glu	Ser	Arg	Phe	Asp
				85				90						95	
Thr	Asn	Ile	Asn	Phe	Leu	Leu	Glu	Glu	Tyr	Gly	Ile	Met	Val	Asn	Asn
			100					105					110		
Asp	Ala	Val	Val	Arg	Asn	Val	Tyr	His	Lys	Tyr	Phe	His	Pro	Lys	Glu
		115					120					125			
Ala	Leu	Val	Ser	Ser	Gly	Val	Leu	Asn	Arg	Glu	Ile	Ser	Arg	Ala	Ala
		130				135					140				
Gly	Lys	Ala	Val	Leu	Ala	Ile	Ile	Asp	Glu	Glu	Ser	Ser	Gly	Asn	Asn
145					150					155				160	
Ala	Gln	Ala	Leu	Thr	Phe	Val	Tyr	Pro	Phe	Gly	Ala	Thr	Leu	Ser	Val
			165					170						175	
Met	Lys	Pro	Ala	Val	Ala	Val	Leu	Ser	Thr	Gly	Ser	Val	Cys	Phe	Pro
		180						185					190		
Leu	Asn	Arg	Pro	Ile	Leu	Ala	Phe	Tyr	His	Ser	Lys	Asn	Gln	Gly	Gly
		195					200						205		
Lys	Leu	Ala	Val	Leu	Gly	Ser	Cys	His	Met	Phe	Ser	Asp	Gln	Tyr	Leu
	210					215					220				
Asp	Lys	Glu	Glu	Asn	Ser	Lys	Ile	Met	Asp	Val	Val	Val	Phe	Gln	Trp
225					230					235				240	
Leu	Thr	Thr	Gly	Asp	Ile	His	Leu	Asn	Gln	Ile	Asp	Ala	Glu	Asp	Pro
			245						250					255	
Glu	Ile	Ser	Asp	Tyr	Met	Met	Leu	Pro	Tyr	Thr	Ala	Thr	Leu	Ser	Lys
		260						265					270		
Arg	Asn	Arg	Glu	Cys	Leu	Gln	Glu	Ser	Asp	Glu	Ile	Pro	Arg	Asp	Phe
		275					280						285		
Thr	Thr	Leu	Phe	Asp	Leu	Ser	Ile	Phe	Gln	Leu	Asp	Thr	Thr	Ser	Phe
	290					295					300				
His	Ser	Val	Ile	Glu	Ala	His	Glu	Gln	Leu	Asn	Val	Lys	His	Glu	Pro
305					310					315				320	
Leu	Gln	Leu	Ile	Gln	Pro	Gln	Phe	Glu	Thr	Pro	Leu	Pro	Thr	Leu	Gln
			325					330						335	
Pro	Ala	Val	Phe	Pro	Pro	Ser	Phe	Arg	Glu	Leu	Pro	Pro	Pro	Pro	Leu

340 345 350
 Glu Leu Phe Asp Leu Asp Glu Thr Phe Ser Ser Glu Lys Ala Arg Leu
 355 360 365
 Ala Gln Ile Thr Asn Lys Cys Thr Glu Glu Asp Leu Glu Phe Tyr Val
 370 375 380
 Arg Lys Cys Gly Asp Ile Leu Gly Val Thr Ser Lys Leu Pro Lys Asp
 385 390 395 400
 Gln Gln Asp Ala Lys His Ile Leu Glu His Val Phe Phe Gln Val Val
 405 410 415
 Glu Phe Lys Lys Leu Asn Gln Glu His Asp Ile Asp Thr Ser Glu Thr
 420 425 430
 Ala Phe Gln Asn Asn Phe
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<210> 4807

<211> 1177

<212> DNA

<213> Homo sapiens

<400> 4807

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 120
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 180
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 420
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 540
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 660
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 780
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 1177

<210> 4808

<211> 313

<212> PRT

<213> Homo sapiens

<400> 4808

Met	Ala	Ala	Pro	Met	Asn	Gly	Gln	Val	Cys	Val	Val	Thr	Gly	Ala	Ser	1	5	10	15
Arg	Gly	Ile	Gly	Arg	Gly	Ile	Ala	Leu	Gln	Leu	Cys	Lys	Ala	Gly	Ala	20	25	30	
Thr	Val	Tyr	Ile	Thr	Gly	Arg	His	Leu	Asp	Thr	Leu	Arg	Val	Val	Ala	35	40	45	
Gln	Glu	Ala	Gln	Ser	Leu	Gly	Gln	Cys	Val	Pro	Val	Val	Cys	Asp		50	55	60	
Ser	Ser	Gln	Glu	Ser	Glu	Val	Arg	Ser	Leu	Phe	Glu	Gln	Val	Asp	Arg	65	70	75	80
Glu	Gln	Gln	Gly	Arg	Leu	Asp	Val	Leu	Val	Asn	Asn	Ala	Tyr	Ala	Gly	85	90	95	
Val	Gln	Thr	Ile	Leu	Asn	Thr	Arg	Asn	Lys	Ala	Phe	Trp	Glu	Thr	Pro	100	105	110	
Ala	Ser	Met	Trp	Asp	Asp	Ile	Asn	Asn	Val	Gly	Leu	Arg	Gly	His	Tyr	115	120	125	
Phe	Cys	Ser	Val	Tyr	Gly	Ala	Arg	Leu	Met	Val	Pro	Ala	Gly	Gln	Gly	130	135	140	
Leu	Ile	Val	Val	Ile	Ser	Ser	Pro	Gly	Ser	Leu	Gln	Tyr	Met	Phe	Asn	145	150	155	160
Val	Pro	Tyr	Gly	Val	Gly	Lys	Ala	Ala	Cys	Asp	Lys	Leu	Ala	Ala	Asp	165	170	175	
Cys	Ala	His	Glu	Leu	Arg	Arg	His	Gly	Val	Ser	Cys	Val	Ser	Leu	Trp	180	185	190	
Pro	Gly	Ile	Val	Gln	Thr	Glu	Leu	Leu	Lys	Glu	His	Met	Ala	Lys	Glu	195	200	205	
Glu	Val	Leu	Gln	Asp	Pro	Val	Leu	Lys	Gln	Phe	Lys	Ser	Ala	Phe	Ser	210	215	220	
Ser	Ala	Glu	Thr	Thr	Glu	Leu	Ser	Gly	Lys	Cys	Val	Val	Ala	Leu	Ala	225	230	235	240
Thr	Asp	Pro	Asn	Ile	Leu	Ser	Leu	Ser	Gly	Lys	Val	Leu	Pro	Ser	Cys	245	250	255	
Asp	Leu	Ala	Arg	Arg	Tyr	Gly	Leu	Arg	Asp	Val	Asp	Gly	Arg	Pro	Val	260	265	270	
Gln	Asp	Tyr	Leu	Ser	Leu	Ser	Ser	Val	Leu	Ser	His	Val	Ser	Gly	Leu	275	280	285	
Gly	Trp	Leu	Ala	Ser	Tyr	Leu	Pro	Ser	Phe	Leu	Arg	Val	Pro	Lys	Trp	290	295	300	
Ile	Ile	Ala	Leu	Tyr	Thr	Ser	Lys	Phe								305	310		

<210> 4809
 <211> 999
 <212> DNA
 <213> Homo sapiens

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 120
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 180
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 420
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 780
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 900
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 999

<210> 4810
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 4810
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 20 25 30
 Ser Gln Pro Gly Cys His Ser Gly Leu Leu Thr Asn Thr Pro Ala Ala
 35 40 45
 Leu Val Pro Ala His Ala Arg Gln Arg Ser Gln Pro Ser Leu Leu Leu

50		55		60
Ser Ser Ser Pro Arg Lys Ser Arg Ser Trp Gln Gly Ser Gly Pro Met				
65		70		75
Trp Pro Gly Pro Gly Tyr Phe Pro Asp Leu Thr Ser Pro Thr Ala Gln				
	85		90	
Pro Leu Gln Leu Leu Gly Ala Leu His Gly Cys Ser Phe Pro Pro Pro				
	100		105	
Leu Pro Ser Gly Gln Pro Cys Pro				
	115		120	

<210> 4811

<211> 3207

<212> DNA

<213> Homo sapiens

<400> 4811

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120
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240
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420
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480
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1140

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2040
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2700
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2760

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<210> 4812

<211> 306

<212> PRT

<213> Homo sapiens

<400> 4812

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Leu	Arg	Thr	Leu	Leu	Glu	Glu	Ala	Val	Pro	Leu	Ser	Cys	Ala	Leu	Pro
			20					25					30		
Lys	Val	Thr	Leu	Pro	Asn	Tyr	Asp	Asn	Val	Pro	Gly	Asn	Leu	Met	Leu
			35				40					45			
Ser	Ala	Leu	Gly	Leu	Arg	Leu	Gly	Asp	Arg	Val	Leu	Leu	Asp	Gly	Gln
	50					55				60					
Lys	Thr	Gly	Thr	Leu	Arg	Phe	Cys	Gly	Thr	Thr	Glu	Phe	Ala	Ser	Gly
65					70					75				80	
Ser	Trp	Val	Gly	Val	Glu	Leu	Asp	Glu	Pro	Glu	Gly	Lys	Asn	Asp	Gly
			85					90						95	
Ser	Val	Gly	Gly	Val	Arg	Tyr	Phe	Ile	Cys	Pro	Pro	Lys	Gln	Gly	Leu
			100					105					110		
Phe	Ala	Ser	Val	Ser	Lys	Ile	Ser	Lys	Ala	Val	Asp	Ala	Pro	Pro	Ser
	115						120					125			
Ser	Val	Thr	Ser	Thr	Pro	Gly	Pro	Pro	Arg	Met	Asp	Phe	Ser	Arg	Val
	130					135					140				
Thr	Gly	Lys	Gly	Arg	Arg	Glu	His	Lys	Gly	Lys	Lys	Lys	Thr	Pro	Ser
145					150					155				160	
Ser	Pro	Ser	Leu	Gly	Ser	Leu	Gln	Gln	Arg	Asp	Gly	Ala	Lys	Ala	Glu
			165					170						175	
Val	Gly	Asp	Gln	Val	Leu	Val	Ala	Gly	Gln	Lys	Gln	Gly	Ile	Val	Arg
			180					185					190		
Phe	Tyr	Gly	Lys	Thr	Asp	Phe	Ala	Pro	Gly	Tyr	Trp	Tyr	Gly	Ile	Glu
	195					200					205				
Leu	Asp	Gln	Pro	Thr	Gly	Lys	His	Asp	Gly	Ser	Val	Phe	Gly	Val	Arg
	210					215					220				
Tyr	Phe	Thr	Cys	Pro	Pro	Arg	His	Gly	Val	Phe	Ala	Pro	Ala	Ser	Arg
225					230					235				240	
Ile	Gln	Arg	Ile	Gly	Gly	Ser	Thr	Asp	Ser	Pro	Gly	Asp	Ser	Val	Gly

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<210> 4813
<211> 400
<212> DNA
<213> Homo sapiens
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120
agtgactgtg ggtgggaaag gaggccgtgg tggctgcagc tttcctctgc aaacctccac
180
ctcgcccaca gggcttggct tttcctccag ctgtccagga aaccaccatc atgattgtta
240
aacacagatt tgaacattca cgaagaaact tccaggggtga gccaaacctt cttcctcccc
300
actgcacctc caagcagcct tcctgaaagg gaaaagagta cagacctgcc ctctggggac
360
ccctgtgccc tgccatgacc agcctttccc cttcacgcgt
400
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<210> 4814
<211> 125
<212> PRT
<213> Homo sapiens
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<400> 4814																
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Phe	Gln	Glu	Gly	Cys	Leu	Glu	Val	Gln	Trp	Gly	Gly	Arg	Gly	Phe	Gly	
			20					25					30			
Ser	Pro	Trp	Lys	Phe	Leu	Arg	Glu	Cys	Ser	Asn	Leu	Cys	Leu	Thr	Ile	
			35				40					45				
Met	Met	Val	Val	Ser	Trp	Thr	Ala	Gly	Gly	Lys	Ala	Lys	Pro	Cys	Gly	
	50					55					60					
Arg	Gly	Gly	Gly	Leu	Gln	Arg	Lys	Ala	Ala	Ala	Thr	Thr	Ala	Ser	Phe	
65					70					75					80	
Pro	Thr	His	Ser	His	Trp	Gln	Thr	Gly	Gly	Gln	Val	Gln	Ser	Pro	Lys	
				85					90					95		
Glu	Thr	Ala	Ala	Cys	Ala	Gly	His	Pro	Pro	Gly	Thr	Ala	Phe	Ser	Leu	
			100					105					110			
Ile	Leu	Pro	Val	Pro	Pro	Thr	Cys	Trp	Val	Ser	Val	Ala				
			115				120					125				

<210> 4815
 <211> 528
 <212> DNA
 <213> Homo sapiens

<400> 4815
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 agcatgtcta caagctctgt acgcaaacga tctgaagggtg aagagaagac attaacaggg
 180
 gacgtgaaaa ccagtcctcc acgaactgca ccaaagaaac agctaccttc tattcccaaa
 240
 aatgctttgc ccataactaa gcctacatca cctgccccag cagcacagtc aacaaatggc
 300
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 360
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 420
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 480
 gtttacatcc ctgataacta tccagatggg gactgtccac gcttggtg
 528

<210> 4816
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 4816
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 20 25 30
 Arg Thr Ala Pro Lys Lys Gln Leu Pro Ser Ile Pro Lys Asn Ala Leu
 35 40 45
 Pro Ile Thr Lys Pro Thr Ser Pro Ala Pro Ala Ala Gln Ser Thr Asn
 50 55 60
 Gly Thr His Ala Ser Tyr Gly Pro Phe Tyr Leu Glu Tyr Ser Leu Leu
 65 70 75 80
 Ala Glu Phe Thr Leu Val Val Lys Gln Lys Leu Pro Gly Val Tyr Val
 85 90 95
 Gln Pro Ser Tyr Arg Ser Ala Leu Met
 100 105

<210> 4817
 <211> 1106
 <212> DNA
 <213> Homo sapiens

<400> 4817
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 180
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 240
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 360
 caagttaaag gcaagatcga caccatgaag aaatttataa gcctgttgat tcaagaactt
 420
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 480
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 540
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 720
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<210> 4818

<211> 135

<212> PRT

<213> Homo sapiens

<400> 4818

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			20				25						30		
Ser	Gln	Ala	Gly	Leu	Asn	Gln	Lys	Leu	Asn	Phe	Ile	Val	Thr	Gly	Leu
		35				40					45				
Gln	Asp	Ile	Asp	Lys	Cys	Arg	Gln	Gln	Leu	His	Asp	Ile	Thr	Val	Pro
	50				55					60					
Leu	Glu	Val	Phe	Glu	Tyr	Ile	Asp	Gln	Gly	Arg	Asn	Pro	Gln	Leu	Tyr
65				70				75					80		
Thr	Lys	Glu	Cys	Leu	Glu	Arg	Ala	Leu	Ala	Lys	Asn	Glu	Gln	Val	Lys

<400> 4819					
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180					
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240					
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360					
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420					
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480					
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660					
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720					
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780					
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840					
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900					
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960					
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1020					
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1080					
gaaaggggtg	cccagacccc	ggacagcagc	gatggaggcc	tgagtcccag	cggtgaggat
1140					
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 1380
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 1440
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 1560
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<210> 4820

<211> 551

<212> PRT

<213> Homo sapiens

<400> 4820

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Met	Glu	Ala	Gly	Gly	Leu	Pro	Leu	Glu	Leu	Trp	Arg	Met	Ile	Leu	Ala
			20					25					30		
Tyr	Leu	His	Leu	Pro	Asp	Leu	Gly	Arg	Cys	Ser	Leu	Val	Cys	Arg	Ala
		35					40					45			
Trp	Tyr	Glu	Leu	Ile	Leu	Ser	Leu	Asp	Ser	Thr	Arg	Trp	Arg	Gln	Leu
	50				55						60				
Cys	Leu	Gly	Cys	Thr	Glu	Cys	Arg	His	Pro	Asn	Trp	Pro	Asn	Gln	Pro
65				70					75					80	
Asp	Val	Glu	Pro	Glu	Ser	Trp	Arg	Glu	Ala	Phe	Lys	Gln	His	Tyr	Leu
			85					90						95	
Ala	Ser	Lys	Thr	Trp	Thr	Lys	Asn	Ala	Leu	Asp	Leu	Glu	Ser	Ser	Ile
			100					105					110		
Cys	Phe	Ser	Leu	Phe	Arg	Arg	Arg	Arg	Glu	Arg	Arg	Thr	Leu	Ser	Val
		115				120						125			
Gly	Pro	Gly	Arg	Glu	Phe	Asp	Ser	Leu	Gly	Ser	Ala	Leu	Ala	Met	Ala
	130					135					140				
Ser	Leu	Tyr	Asp	Arg	Ile	Val	Leu	Phe	Pro	Gly	Val	Tyr	Glu	Glu	Gln
145				150					155						160
Gly	Glu	Ile	Ile	Leu	Lys	Val	Pro	Val	Glu	Ile	Val	Gly	Gln	Gly	Lys
			165					170					175		
Leu	Gly	Glu	Val	Ala	Leu	Leu	Ala	Ser	Ile	Asp	Gln	His	Cys	Ser	Thr
		180					185					190			
Thr	Arg	Leu	Cys	Asn	Leu	Val	Phe	Thr	Pro	Ala	Trp	Phe	Ser	Pro	Ile
	195				200						205				
Met	Tyr	Lys	Thr	Thr	Ser	Gly	His	Val	Gln	Phe	Asp	Asn	Cys	Asn	Phe
	210				215						220				
Glu	Asn	Gly	His	Ile	Gln	Val	His	Gly	Pro	Gly	Thr	Cys	Gln	Val	Lys
225				230					235					240	
Phe	Cys	Thr	Phe	Lys	Asn	Thr	His	Ile	Phe	Leu	His	Asn	Val	Pro	Leu

245 250 255
 Cys Val Leu Glu Asn Cys Glu Phe Val Gly Ser Glu Asn Asn Ser Val
 260 265 270
 Thr Val Glu Gly His Pro Ser Ala Asp Lys Asn Trp Ala Tyr Lys Tyr
 275 280 285
 Leu Leu Gly Leu Ile Lys Ser Ser Pro Thr Phe Leu Pro Thr Glu Asp
 290 295 300
 Ser Asp Phe Leu Met Ser Leu Asp Leu Glu Ser Arg Asp Gln Ala Trp
 305 310 315 320
 Ser Pro Lys Thr Cys Asp Ile Val Ile Glu Gly Ser Gln Ser Pro Thr
 325 330 335
 Ser Pro Ala Ser Ser Ser Pro Lys Pro Gly Ser Lys Ala Gly Ser Gln
 340 345 350
 Glu Ala Glu Val Gly Ser Asp Gly Glu Arg Val Ala Gln Thr Pro Asp
 355 360 365
 Ser Ser Asp Gly Gly Leu Ser Pro Ser Gly Glu Asp Glu Asp Glu Asp
 370 375 380
 Gln Leu Met Tyr Arg Leu Ser Tyr Gln Val Gln Gly Pro Arg Pro Val
 385 390 395 400
 Leu Gly Gly Ser Phe Leu Gly Pro Pro Leu Pro Gly Ala Ser Ile Gln
 405 410 415
 Leu Pro Ser Cys Leu Val Leu Asn Ser Leu Gln Gln Glu Leu Gln Lys
 420 425 430
 Asp Lys Glu Ala Met Ala Leu Ala Asn Ser Val Gln Gly Cys Leu Ile
 435 440 445
 Arg Lys Cys Leu Phe Arg Asp Gly Lys Gly Gly Val Phe Val Cys Ser
 450 455 460
 His Gly Arg Ala Lys Met Glu Gly Asn Ile Phe Arg Asn Leu Thr Tyr
 465 470 475 480
 Ala Val Arg Cys Ile His Asn Ser Lys Ile Ile Met Leu Arg Asn Asp
 485 490 495
 Ile Tyr Arg Cys Arg Ala Ser Gly Ile Phe Leu Arg Leu Glu Gly Gly
 500 505 510
 Gly Leu Ile Ala Gly Asn Asn Ile Tyr His Asn Ala Glu Ala Gly Val
 515 520 525
 Asp Ile Arg Lys Lys Ser Asn Pro Leu Gln Ile Gly Asn Pro Arg Ala
 530 535 540
 Glu Phe Leu Ala Ser Arg Ala
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<210> 4821

<211> 585

<212> DNA

<213> Homo sapiens

<400> 4821

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 120
 agagaactgg gggagctgct gggcgaagca cgctactacc tgggtgcaggg cctgattgag
 180
 gactgccagc tggcgctgca gcaaaaaagg gagacgctgt ccccgctgtg cctcatcccc
 240

atggtgacat ctccccggga ggagcagcag ctctggcca gcacctcaa gcccggtgtg
 300
 aagctcctgc acaaccgcag taacaacaag tactcctaca ccagcacttc agatgacaac
 360
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 420
 ttcctcaagg atgtcctggg ggacgagatc tgctgctggt ctttctacgg gcagggccgc
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<210> 4822

<211> 195

<212> PRT

<213> Homo sapiens

<400> 4822

Gly	Arg	Val	Glu	Val	Leu	Thr	Asp	Ala	Gly	Gly	Trp	Val	Leu	Ile	Asp
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Arg	Ser	Gly	Arg	His	Phe	Gly	Thr	Ile	Leu	Asn	Tyr	Leu	Arg	Asp	Gly
			20					25					30		
Ser	Val	Pro	Leu	Pro	Glu	Ser	Thr	Arg	Glu	Leu	Gly	Glu	Leu	Leu	Gly
		35				40					45				
Glu	Ala	Arg	Tyr	Tyr	Leu	Val	Gln	Gly	Leu	Ile	Glu	Asp	Cys	Gln	Leu
	50					55					60				
Ala	Leu	Gln	Gln	Lys	Arg	Glu	Thr	Leu	Ser	Pro	Leu	Cys	Leu	Ile	Pro
65					70					75				80	
Met	Val	Thr	Ser	Pro	Arg	Glu	Glu	Gln	Gln	Leu	Leu	Ala	Ser	Thr	Ser
			85					90						95	
Lys	Pro	Val	Val	Lys	Leu	Leu	His	Asn	Arg	Ser	Asn	Asn	Lys	Tyr	Ser
		100						105					110		
Tyr	Thr	Ser	Thr	Ser	Asp	Asp	Asn	Leu	Leu	Lys	Asn	Ile	Glu	Leu	Phe
	115					120						125			
Asp	Lys	Leu	Ala	Leu	Arg	Phe	His	Gly	Arg	Leu	Leu	Phe	Leu	Lys	Asp
	130					135						140			
Val	Leu	Gly	Asp	Glu	Ile	Cys	Cys	Trp	Ser	Phe	Tyr	Gly	Gln	Gly	Arg
145					150					155				160	
Lys	Ile	Ala	Glu	Val	Cys	Cys	Thr	Ser	Ile	Val	Tyr	Ala	Thr	Glu	Lys
			165					170						175	
Lys	Gln	Thr	Lys	Val	Arg	Gly	Ala	Pro	Glu	Pro	Met	Leu	Gly	Ala	Gly
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Gly	Gly	His													
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<210> 4823

<211> 1984

<212> DNA

<213> Homo sapiens

<400> 4823

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120
ttaaaggaaa aatctacagg aagtaagaag gccaatagat ttcataccta ttcaaaagac
180
aagaattcgg gcaactggaga aaagaagggc ccaaatcgta acagagtttt cattagcaac
240
atcccatatg acatgaaatg gcaagctatt aaagatctaa tgagagagaa agttgggtgag
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360
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420
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480
cagcgaacag gaggatcatt tccaggagga caggtccctg atatgggatc aggggttgatg
540
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600
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1680